REPORT

ON THE

SANITARY CONDITION

OF THE

BOROUGH OF CAMBRIDGE,

From January 1st to December 31st, 1911,

BY

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Part i.

Statistical.

SUMMARY OF REPORT FOR 1911.

Situation and Soil.—Cambridge is situated on the border of the Fen land, just below the confluence of several streams which form the River Cam. The river takes a sharp curve, enclosing on its right bank the larger part of the town and having on its left a smaller and more elevated portion. A small portion of the district to the East rests on chalk, and the remainder on gault, which is capped in the lower parts of the town by the gravels and alluvium.

Altitude.—Varies from 20·7 feet close to the Pumping Station to 73·2 feet at the top of Castle Street.

Area of Borough in Acres	3210
Population at Census, 1911	40·027
Estimated Population to middle of 1911	40·069
Average number of persons per Acre	12·5
Birth-rate per 1000 living	19·0
Death-rate per 1000 living	13·6
Death-rate from Epidemic Diseases	2·14
Deaths under one 1 year of Age to 1,000 Registered Births	125
Death-rate from Phthisis	0·75
Rateable Value	£311,975
Product of 1d. Rate	£1,291 19s. 0d.
General District Rate	2/9
Poor Rate (including Education Rate)	2/10

REPORT.

Population.

The preliminary report upon the Census of the population which was taken on the 3rd April, 1911, contains the only official figures which are available so far.

In the following table are given the Census figures since 1881 :—

	1881.		1891.		1901.		1911.
St. Andrew-the-Less ...	21,078	...	25,730	...	28,424	...	30,714
St. Andrew-the-Great...	14,285	...	11,253	...	9,955	...	9,314
Total Population...	35,363		36,983		38,379		*40,028

St. Andrew-the-Less is steadily increasing by over 2,000 every ten years, while the parish of St. Andrew-the-Great is steadily diminishing.

The actual decennial increases for the whole Borough are 1,620, 1,396, and 1,649, or 4·2, 3·7, and 4·2 per cent.

One effect of this uniform rate of increase is that the vital statistics of the Borough as presented in successsive annual reports may for all practical purposes be taken as accurate.†

The population to the middle of 1911, based upon the 1891-1901 increase, was estimated at 40,706, and upon the 1901-1911 increase at 40,069.

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* Since corrected, and now given as 46,027 by the Registrar-General.

† The figures given relating to all previous years have been re-calculated for this report, and effect has been given to the new regulations of the Registrar-General as to distribution of deaths of "Residents" and "Non-Residents."

The estimated population of the two registration sub-districts at the middle of 1911 is

St. Andrew-the-Less	... ...	30,772.
St. Andrew-the-Great	... ...	9,297.

Up to the time of writing only the preliminary report upon the Census had been issued, so that further details relating to such questions as housing, occupations, etc., must be reserved for the next Annual Report.

Area and Density of Population.

The area of the Borough, excluding any area covered by water, is 3,210 acres. This gives a density of 12·5 persons per acre. Excluding 315 acres of public common and open spaces, the number of persons per acre is 13·8.

Marriages and Marriage Rate.

The number of marriages during the year was 309, equal to a rate of 15·4 per 1,000 of the population.

Births and Birth-rate.

The total number of births registered was 764 (413 males and 351 females). The birth-rate per 1,000 of the estimated population was 19·0, which is 0·3 lower than the rate recorded for the year 1910.

The mean rate for the previous ten years was 21·1.

The birth-rate for England and Wales in 1911 was 24·4, which is 0·7 per 1,000 below the rate for 1910, and lower than the rate in any other year on record.

Of the births registered 37, or 4·8 per cent., were illegitimate, as compared with 42, or 5·2 per cent., in 1910.

Deaths and Death-rate.

The total number of deaths registered during 1911 was 623, equal to an *uncorrected* death-rate of 15·5 per 1,000 of the population. Correction must be made for twenty-five deaths of persons belonging to the Borough which occurred outside the district, viz.:—15 in the County Asylum at Fulbourn, and 10 in various parts of the country. These must be added, while 97 deaths of persons not belonging to the district must be subtracted. Of these 83 occurred in Addenbrooke's Hospital, 2 in the Union Workhouse, 4 in the Infectious Diseases Hospital, and 8 in other parts of the Borough. The corrected number is therefore 551*, of which 292 were males and 259 were females. This is 44 more than the corrected number of deaths for 1910. The *crude* death-rate is therefore 13·7, which is 1·0 per 1,000 higher than the rate recorded for the year 1910.

By applying the factor of correction (·994), by means of which the rate is made strictly comparable with that of England and Wales, the *corrected* death-rate is found to be 13·6 per 1,000.

The mean rate for the previous ten years is 13·7.

The death-rate for England and Wales for the year 1911 is given as 14·6 per 1,000, which is 1·1 per 1,000 above the rate in 1910, and equal to the rate in 1909, but lower than the rate in any year on record.

The Charts on page 10 show the birth-rate and death-rate for each year from 1875 to 1911.

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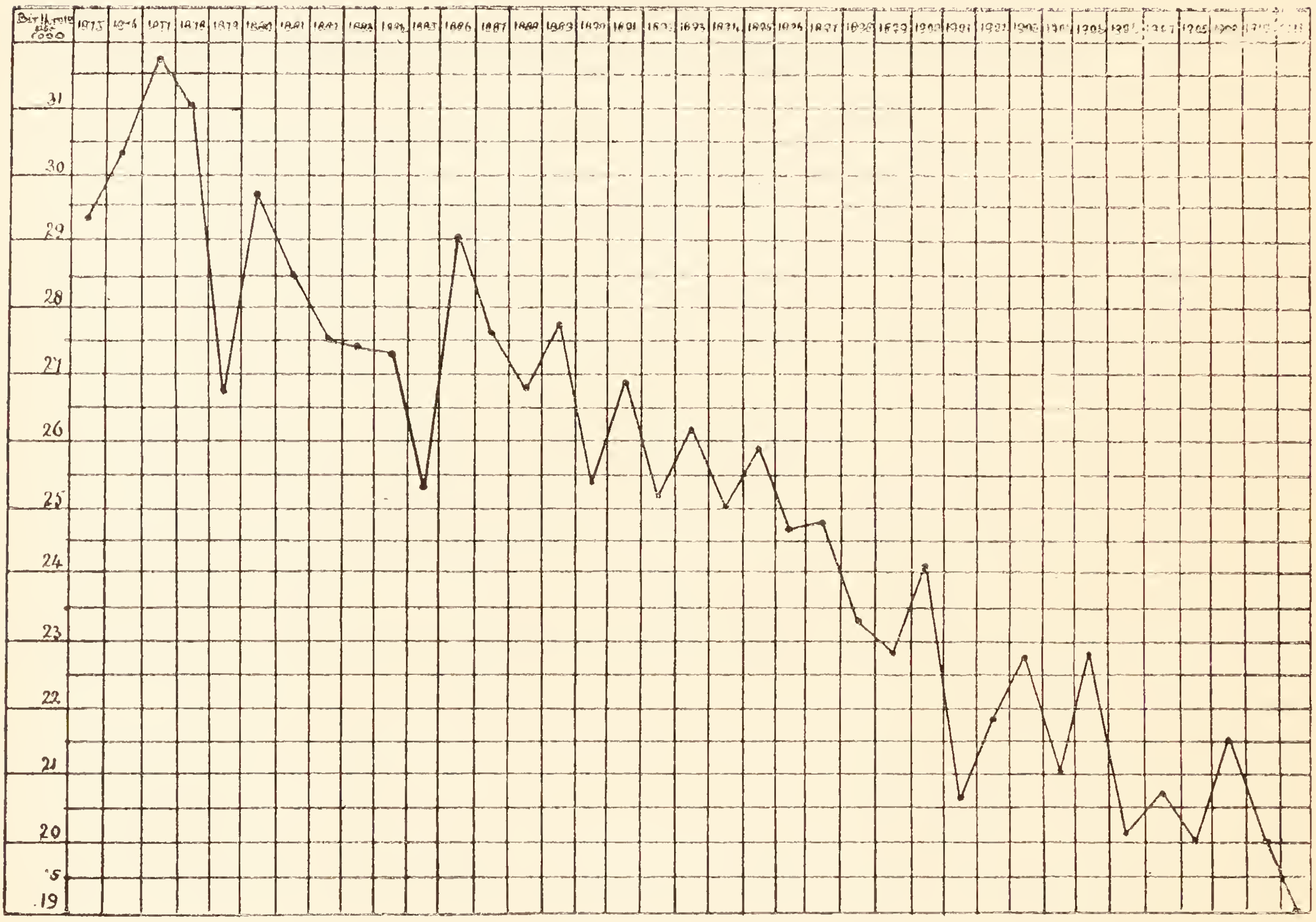
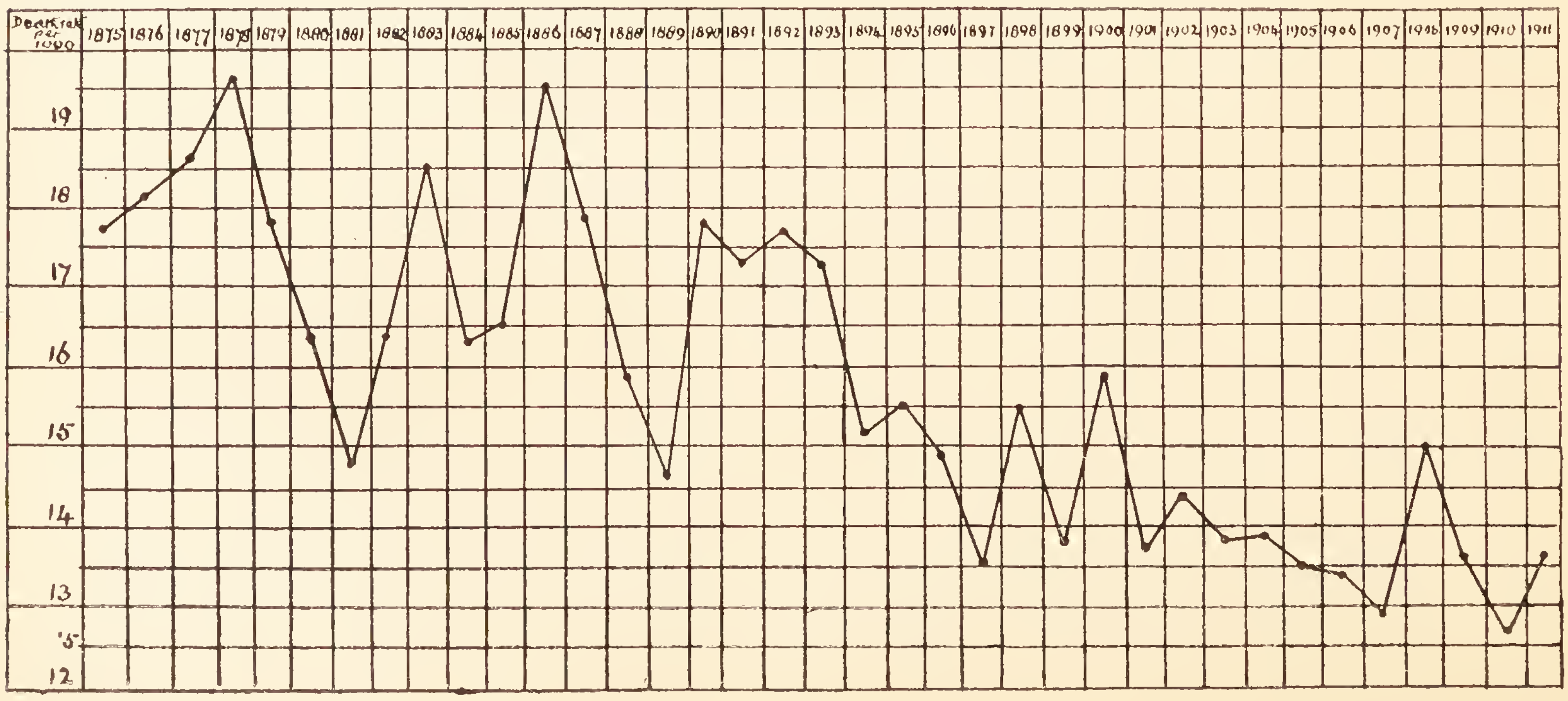
* This number includes the death of three undergraduates by direction of the Registrar General. If the above correction was made the crude death-rate would be 13·6, and the corrected death-rate 13·5.

Charts showing the Birth-rate and Death-rate of Cambridge for each year since 1875.

BIRTH-RATE.



DEATH-RATE.



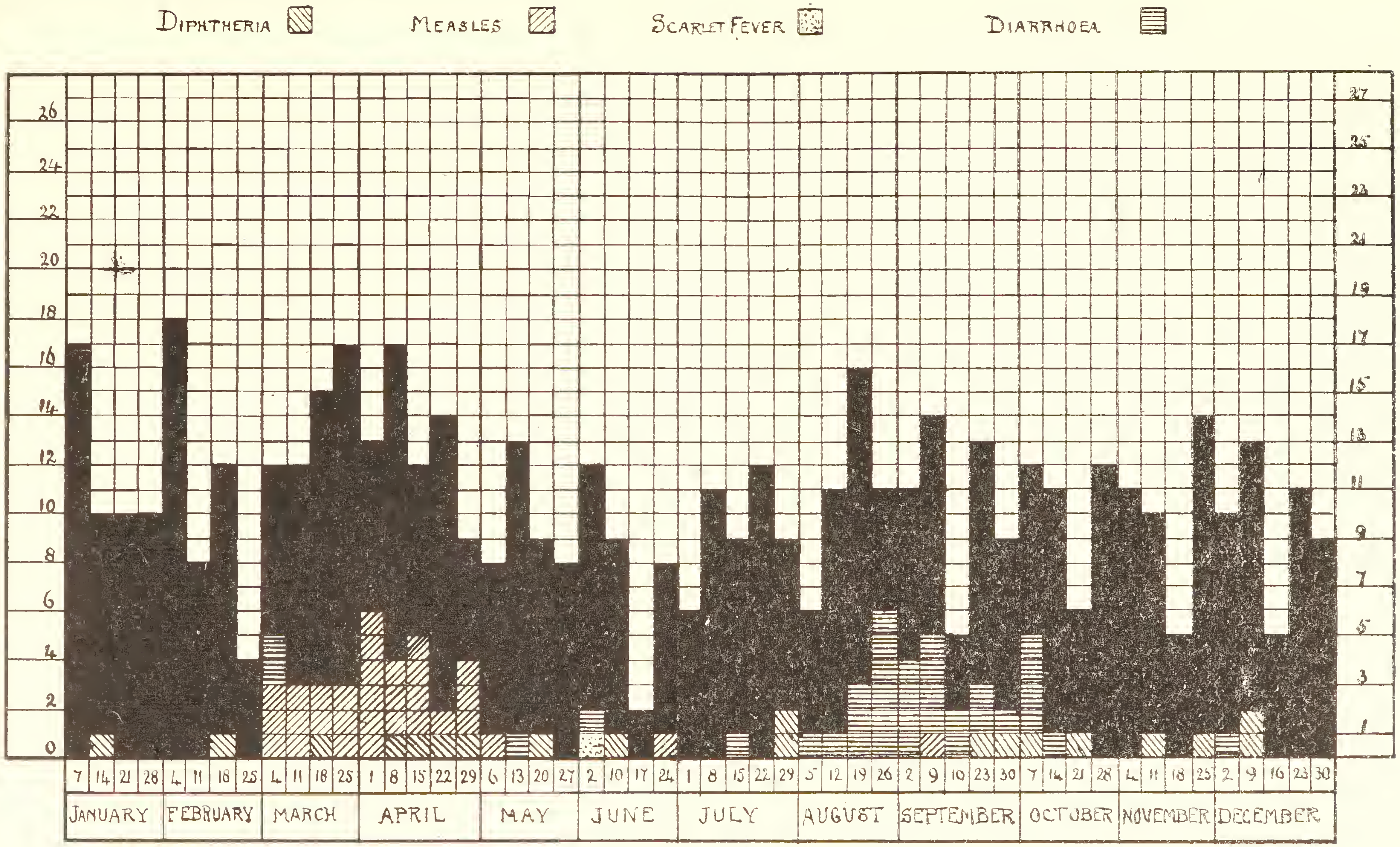


Chart showing the number of Deaths from All Causes during each week in 1911, distinguishing Deaths from Epidemic Diseases.

Principal Causes of Death.

The relative importance of the various causes of death is shown by the following figures :—

CAUSE OF DEATH.	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	Average 1901-10.	1911
Diseases of Respiratory Organs (excluding Consumption) ...	86	98	84	80	74	99	80	81	74	86	84	69
Tubercular Diseases (including Consumption)	68	62	63	56	50	47	57	64	48	56	57	43
Diseases of the Heart ...	53	58	47	55	45	39	53	51	53	47	50	38
Malignant Diseases (Cancer, &c.)	33	23	34	44	46	34	46	49	54	52	42	38
Diarrhœa and Enteritis..	35	14	19	30	20	44	13	17	16	12	22	35
Premature Birth ...	20	11	14	17	13	10	13	21	22	11	15	16
Measles	2	44	—	12	9	1	—	33	1	—	10	31
Whooping Cough ...	—	5	7	—	—	16	—	32	—	8	7	—
All other causes... ..	230	242	268	248	272	235	248	246	275	235	250	281

Mortality in Relation to Age.

The number of deaths at different periods of life is shown in the following table :—

AGE GROUP.	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	Average 10 years,	1911
Under 1 year ...	101	114	96	106	70	101	72	106	71	61	90	96
1 and under 5...	32	57	41	31	37	53	23	84	20	29	41	59
5 and under 15.	12	19	23	25	24	22	16	22	18	20	20	31
15 and under 25	23	25	23	27	23	19	16	31	22	24	23	25
25 and under 65	198	163	166	150	182	160	183	162	172	175	171	181
65 and upwards	161	179	187	203	193	170	200	189	240	198	192	159
All Ages ..	527	557	536	542	529	525	510	594	543	507	537	551

Mortality in Relation to Season.

The number of deaths occurring in each quarter of the year during the past ten years is shown in the following table:—

Year.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total for Year.
1901 ...	153	114	128	132	527
1902 ...	166	152	107	132	557
1903 ...	175	130	118	113	536
1904 ...	165	106	126	145	542
1905 ...	198	119	91	121	529
1906 ...	170	110	124	121	525
1907 ...	163	118	112	117	510
1908 ...	193	156	116	129	594
1909 ...	181	123	91	148	543
1910 ...	157	115	104	131	507
Mean for 10 years	172	124	112	129	537
1911 ...	157	126	139	129	551

The number of deaths in each week throughout the year is shown on the Chart on page 11.

Epidemic Mortality.

The deaths belonging to the chief epidemic diseases include 19 from Diphtheria, 1 from Scarlet Fever, 35 from Diarrhœa (27 under 1 year of age), and 31 from Measles, total 86, equal to a death-rate from these diseases of 2·14 per 1,000 of the population per annum, which is a higher rate by 1·50 than in the year 1910.

The mean rate for the previous ten years is 1·17.

Infantile Mortality.

The number of deaths registered of children under one year of age belonging to the Borough was 96, as compared with 61 in 1910.

The Infant mortality rate or the proportion of such deaths to 1,000 births was 125. The rate for 1910 was 76, and the mean rate for the previous ten years was 108.

The Infantile mortality rate for England and Wales is given as 130, which is 24 per 1,000 above the rate in 1910—the lowest on record—but is only 3 per 1,000 above the average for the ten years 1901—1910.

The causes of the Infantile mortality are set out fully in Table IV. at the end of the report, while the relative importance of the various contributory causes for a number of years is shown in the following table :—

CAUSE OF DEATH.	1905	1906	1907	1908	1909	1910	Average for years 1905–1910	1911
Premature Birth	13	11	13	21	22	11	16	16
Atrophy, Debility, and Marasmus	5	8	14	18	10	8	11	12
Diarrhœal Diseases ...	14	33	10	12	9	8	14	27
Measles	1	—	—	5	—	—	1	8
Whooping Cough... ...	—	9	—	12	—	4	4	—
Bronchitis and Pneumonia	8	26	20	15	8	14	15	11
Tuberculous Diseases ...	3	2	1	6	3	1	2	—
Convulsions	2	2	3	4	4	1	2	2
All other Diseases ..	24	10	11	13	15	14	15	20
TOTALS	70	101	72	106	71	61	80	96

From this table it will be seen that the principal cause of the increased infant death-rate was the large number of deaths which took place from diarrhœal diseases, while Measles also accounted for eight deaths, a much larger number than there has been for many years.

There can be no doubt that the excessively hot and dry weather experienced during the autumn was responsible for the great rise in the mortality among infants, and that Cambridge in this respect shared the unhappy experience of the rest of the country, the death-rate for infants in the country generally having risen from 106 in 1910 to 130 in 1911.

The following is a list of the streets in which deaths from infantile diarrhœa occurred during the year:—

Street.	No. of Cases.	Street.	No. of Cases.
Albert Street, New Street	1	Jordan's Yard ...	1
Belgrave Road	1	Lawrence's Yard ...	1
Bolton's Yard	1	Newmarket Road...	2
Britannia Place ...	1	Norwich Street ...	1
Castle Street	1	Paradise Street ...	1
Catharine Street ...	1	Perowne Street ...	1
Cyprus Road	1	Romsey Terrace ...	1
Fair Street	1	Russell Street ...	1
Fitzroy Street	1	River Lane ...	1
Great Eastern Street ...	2	St. Matthew's Street	1
Gwydir Street	1	Thoday Street ...	1
Hooper Street	1	Wellington Street...	1
		York Street ...	1

Particulars of Deaths of Illegitimate Children during 1911.

During the year 8 deaths amongst illegitimate children under one year of age were registered.

Age.	Sex.	Cause of Death.
1 month	M ...	Gastro Enteritis.
2 months	F ...	Anasarca. Wasting.
10 months	M ...	Bronchitis.
11 months	M ...	Broncho-Pneumonia.
10 days	F ...	Premature Birth.
1 day	M ...	Inattention at Birth. Misadventure.
6 months	M ...	Meningitis.
6 months	M ...	Epidemic Diarrhœa.

The death-rates per 1,000 births of each class among legitimate and illegitimate children for the past six years are shown below :—

	1906.	1907.	1908.	1909.	1910.	**1911.**
Infantile death-rate of legitimate children ...	125	81	129	78	75	**121**
Infantile death-rate of illegitimate children...	175	219	257	163	95	**216**

Coroner's Inquests.

Inquests were held by the Coroner into the cause of 43 deaths of persons belonging to the Borough. These were eventually returned as due to Natural Causes in 19 cases, Accident or Negligence (such as falls, scalds, over-laying, poison, &c.) in 17 cases, and Suicide in 7 cases.

The proportion of inquests per 1,000 deaths was 78·0, as compared with 50·6 in 1910.

The number of inquests held and the proportion per 1,000 deaths in each of the past ten years is shown below :—

Year.	Number of Inquests.	Proportion per 1,000 Deaths.
1901	52	98·6
1902	42	75·4
1903	38	70·2
1904	38	69·0
1905	20	37·6
1906	33	62·2
1907	28	54·1
1908	31	51·4
1909	34	62·1
1910	26	50·6
1911	**43**	**78·0**

Uncertified Deaths.

These are deaths the causes of which have not been certified by a medical practitioner or by the Coroner after inquest.

Year	Uncertified Deaths.	Percentage of Total Deaths.
1901	1	0·1
1902	5	0·8
1903	2	0·3
1904	1	0·1
1905	2	0·3
1906	1	0·1
1907	2	0·3
1908	Nil	0·0
1909	2	0·3
1910	2	0·3
1911	**1**	**0·1**

Still-Births.

The registration of still-births is not compulsory, but no still-born child may be interred in any burial ground without a certificate from some responsible person, not necessarily a medical practitioner. As a matter of practice such certificates are generally signed by the doctor or midwife in attendance, or by a Coroner after inquest.

The number of still-births notified under the Notification of Births Act, 1907, was 19, and the number notified to the County Medical Officer under the Midwives Act was 11. Allowing for duplicate notifications, we get an estimated total of 20 for the year, giving a rate of 2·6 per 100 births.

Vaccination.

The information given below has been kindly supplied by Mr. Rule, the Vaccination Officer. It will be seen that the proportion of children born who have been successfully vaccinated is extremely low. For the first time since the passing of the Vaccination Act, 1907, the number of exemptions granted does not exceed that of the previous year.

	1910	For the period Jan. to June, 1911.
Number of Births	802	380
Number of successful Vaccinations	263	130
,, ,, Certificates of Insusceptibility...	Nil.	Nil.
,, ,, Statutory Declarations of Conscientious Objection...	462	210
,, who died Unvaccinated ...	54	25
,, postponed by Medical Certificate..	1	4
,, removed to other districts ...	7	5
,, not found ...	11	4
,, in abeyance...	4	2
Percentage successfully Vaccinated ...	32·79	34·21
Percentage successfully Vaccinated, excluding those who died Unvaccinated ...	35·16	36·61

	1905.	1906.	1907.	1908.	1909.	1910.	1911.
Number of Statutory Declarations (or Certificates) of conscientious objections actually received during the last few years ...	66	51	96	409	470	472	439

Poor Law Relief Statistics.

I am indebted to Mr. J. Congreve, Clerk to the Poor Law Guardians, for the following figures relating to pauperism in Cambridge:—

	Half-year ended Michaelmas, 1910.	Half-year ended Michaelmas, 1911.
The number relieved in the Workhouse:—		
(*a*) Able-bodied ...	26	24
(*b*) Not able-bodied ...	239	265
(*c*) Children ...	56	60
(*d*) Insane ...	1	Nil.
Number of Vagrants relieved in the Workhouse	4235	4218
Number of Out-door Poor relieved ...	644	547
Number of Out-door Vagrants relieved ...	Nil.	Nil.

Comparative Statistics.

The comparative statistics for the two areas respectively into which the district is divided, after distributing the deaths in the Union Workhouse, Addenbrooke's Hospital, Infectious Diseases Hospital, County Lunatic Asylum, and other places, to their respective areas, are appended in the following table:—

REGISTRATION SUB-DISTRICT.	Deaths belonging.	Share of W. H.	A. H.	County Asylum.	Other Places.	Infect. Diseases Hospital	Total.	Birth-rate.	Death rate.
S. Andrew-the-Less . .	332	29	46	12	5	16	440	21·2	14·3
S. Andrew-the-Great..	85	6	11	3	6	—	111	11·7	11·9
Entire District	417	35	57	15	11	16	551	19·0	13·7

Part ii.

Records of Disease Incidence.

RECORDS OF DISEASE.

Notifiable Diseases.

Disease of an infectious character has been more prevalent during the year than in any year since the Infectious Disease (Notification) Act came into force, with the exception of the year 1903, and as will be seen from the following table, is more than double the average for the past ten years. The total number of cases notified during the year is 477 (20 fatal), equal to a case-rate per thousand of the population of 11·9.

Table showing prevalence and mortality of all notifiable infectious diseases for years 1901-1911 :—

Year.	Cases Notified.	Deaths.	Percentage of deaths to cases notified.
1901	172	10	5·8
1902	256	9	3·5
1903	550	33	6·0
1904	183	12	6·6
1905	253	22	8·6
1906	164	14	8·5
1907	172	4	2·3
1908	138	6	4·3
1909	210	8	3·8
1910	220	17	7·7
Average for years 1901—1910	232	13·5	5·8
1911	477	20	4·1

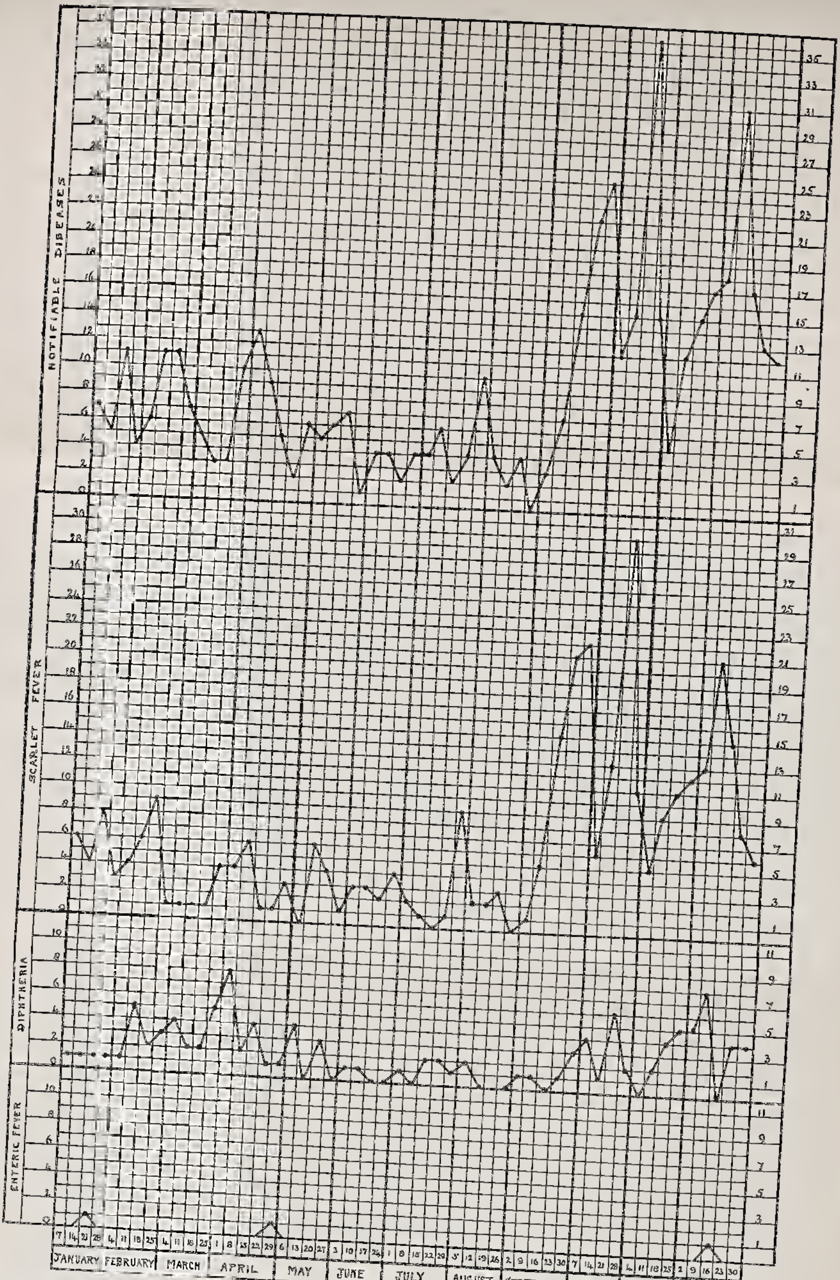


Chart showing the number of cases of all Infectious Diseases (excluding Pulmonary Tuberculosis) notified during each week of the year 1911, and of three specially selected Diseases, viz., Scarlet Fever, Diphtheria, and Enteric Fever.

Small-pox.

No case of Small-pox has been notified during the year, but on April 1st three communications from the Port Medical Officer of Southampton were received informing me that three persons, arriving by s.s. Plassy H.T. on which a case of Small-pox had occurred, had been allowed to proceed to Cambridge. They were at once traced and kept under observation during the incubation period of the disease.

Diphtheria.

The total number of *notifications* received during the year was 112*, equal to a case-rate of 2·79 per 1,000 of the population. In all seventy-four households were affected.

The prevalence and fatality of the disease since 1901 is shown in the following table:—

Year.	Cases Notified.	Deaths.	Percentage of deaths to cases notified.
1901	55	7	12·7
1902	16	2	12·5
1903	68	11	16·1
1904	39	10	25·6
1905	65	18	27·7
1906	31	12	38·7
1907	33	3	9·1
1908	78	6	7·7
1909	59	7	11·8
1910	59	14	23·7
Average for years 1901-1910	50	9·0	18·0
1911	112*	19	16·9

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* Deducting 25 who were "Carriers" but for whom notifications were received, the actual number of clinical cases was 87, and the rate 2·17 per 1,000 of the population.

The distribution of the cases throughout the year was as follows, and is also shown on the chart facing page 22 :—

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.
5	12	19	8	7	3	5	2	6	13	13	19

The clinical diagnosis was confirmed by bacteriological examination in 83 cases. In addition 808 throat swabs were taken either from other members of the affected family or from children at the Elementary Schools. Forty-three of these gave positive results, and twenty-five of them are included among the notifications, and were treated as cases of diphtheria. More than half of the patients (66) were school children, 15 were over school age, and the remainder either under school age or had not been attending school at the time they sickened.

Cases occurred among the scholars of 13 schools. The largest number attending any one school (including boys' girls' and infants' departments) was 17, the next highest number being 14, the numbers then gradually falling at the other schools to 8, 6, 5, 3, 2, and 1.

There was no unusual method of spread, as by infected milk, to account for the great increase in the number of cases. In every instance personal infection either from a recognised clinical case or from a germ "carrier" seems to have been the source. The grouping of cases in schools arose mainly from the presence of "carriers" among the children, while thirteen children were at school on the day they sickened, and one went to school one day, another four days, another ten days, another eleven days, and another fourteen days after the first onset of the symptoms. One person had been going to work for a fortnight, and another for several weeks before the nature of their illness was recognised.

With regard to the number of deaths there is apparently some tendency to delay the use of antitoxin until bacteriological confirmation of the diagnosis is obtained. In this way valuable time may be lost and in view of the fact that the Council have made provision for the free distribution of antitoxin, it is greatly to be hoped that full use will be made of this. In too many cases unhappily the parents have already postponed too long the calling in of their Doctor, and a further loss of twenty-four hours is quite likely to turn the scale in the direction of a fatal termination.

Scarlet Fever.

The total number of cases notified was 331 in 228 households, and is the largest number notified in any year since the Infectious Diseases (Notification) Act came into force.

The type was fortunately exceptionally mild and only one case terminated fatally; the case-rate per thousand of the population was 8·2.

It will be seen from the chart facing page 22 and from the weekly record of notifications on page 34 that it was not until September that the notifications showed any notable increase in number. During the last four months of the year 225 cases in 143 households were notified. In the appendix will be found a special report dealing with the origin of this outbreak, which continued until well into the current year.

Table showing prevalence and mortality for years 1901—1911 :—

Year.	Cases Notified.	Deaths.	Percentage of deaths to cases notified.
1901	74	—	—
1902	203	3	1·4
1903	284	6	2·1
1904	66	2	3·0
1905	132	2	1·5
1906	101	1	1·0
1907	76	1	1·3
1908	36	—	—
1909	121	1	0·8
1910	141	—	—
Average for years 1901-1910	123	1·6	1·3
1911	331	1	0·3

Typhoid Fever.

Only three cases were notified during the year, all of which were imported from outside the district.

No death has occurred from this disease in the Borough since 1906.

Table showing prevalence and mortality for years 1901—1911 :—

Year.	Cases Notified.	Deaths.	Percentage of deaths to cases notified.
1901	22	3	13·6
1902	13	3	23·0
1903	6	1	16·6
1904	9	—	—
1905	8	2	25·0
1906	4	1	25·0
1907	2	—	—
1908	6	—	—
1909	2	—	—
1910	2	—	—
Average for years 1901–10	7·4	1·0	13·5
1911	3	—	—

Puerperal Fever.

Five cases of Puerperal Fever, one of which proved fatal, were notified during the year. It will be noted that in the Table below two deaths are recorded, but one of these was that of a Cambridge resident who died in Fulbourn Asylum and is not one of the five cases notified.

Table showing prevalence and mortality for year 1901—1911 ;—

Year.	Cases Notified.	Deaths.	Percentage of deaths to cases notified.
1901	1	1	100·0
1902	1	1	100·0
1903	2	1	50·0
1904	1	—	—
1905	5	2	40·0
1906	1	—	—
1907	10	2	20·0
1908	1	1	100·0
1909	—	—	—
1910	1	1	100·0
Average for years 1901–1910	2·3	0·9	39·0
1911	5	2	40·0

Erysipelas.

Twenty-six cases of Erysipelas in 24 households were notified during the year, equal to a case-rate per thousand of the population of 0·64.

Table showing prevalence and mortality for 1901—1911 :—

Year.	Cases Notified.	Deaths.	Percentage of deaths to cases notified.
1901	20	2	10·2
1902	22	—	—
1903	23	—	—
1904	33	1	3·0
1905	43	—	—
1906	27	2	7·4
1907	51	3	5·9
1908	17	—	—
1909	28	1	3·6
1910	17	2	11·7
Average for years 1901-1910	28·1	1·1	3·9
1911	26	—	—

Other Notifiable Diseases.

No case of Cholera, Typhus Fever, Relapsing Fever, or Continued Fever has been notified during the year.

No case of Plague has been notified during the year, but a communication from the Clerk to the Weymouth Port Sanitary Authority was received on August 17th, informing me that the "Derbyshire" from Rangoon, a place infected with Plague, had arrived, and that a passenger had been allowed to proceed to Cambridge. Enquiries were made at the address given and he was kept under observation sufficiently long to be sure he had not incepted the disease.

Diarrhœa.

Number of death	35
Death-rate per 1,000 living ...	0·37
Death-rate in England and Wales.	1·06

On only four occasions during the last twenty years has the annual number of deaths from diarrhœal diseases exceeded that of 1911. This excessive mortality occurred chiefly in the autumn and it is to be attributed to the exceptionally high temperatures and low rainfall which were then experienced.

Twenty-seven of the deaths were of infants under one year of age, four between one and two years of age, one between two and five years of age, one at 46, one at 64, and one at 76 years of age.

The seasonable distribution for the four quarters of the year was :—in the first quarter, 2 deaths, in the second quarter, 3 deaths, in the third quarter, 24 deaths, and in the last quarter, 6 deaths.

The deaths and death-rate from Diarrhœa among persons belonging to the district during the previous twenty years are set out in the following table :—

	Deaths.	Death-rate.		Deaths.	Death-rate.
1891	22	0·59	1901	21	0·54
1892	17	0·45	1902	7	0·18
1893	57	1·53	1903	6	0·15
1894	11	0·29	1904	29	0·74
1895	28	0·74	1905	14	0·35
1896	17	0·45	1906	42	1·07
1897	24	0·63	1907	12	0·30
1898	37	0·97	1908	9	0·22
1899	43	1·13	1909	15	0·37
1900	17	0·44	1910	4	0·10
Annual average for years 1891—1900	27·3	0·72	Annual average for years 1901—1910	15·9	0·40

	Deaths.	Death-rate.
Annual average for years 1891—1910	21·6	0·56

Measles.

Number of deaths	31
Death-rate per 1,000 living ...	0·77
Death-rate for England and Wales	0·36

After two years of almost complete freedom from the disease, Measles became epidemic throughout the whole Borough, and contributed very materially to the increase in the death-rate for 1911. Notification of cases by Head Teachers, visitation at home by the School Nurse, and attempts at isolation at home had no apparent effect whatever in checking its spread. The fact that the disease is not recognised until three or four days have elapsed from the time of the onset is of course the great stumbling block in dealing with it, and whatever steps are taken seem to have little if any effect. In many towns attention is now being specially directed to reducing its fatality by removing the cases most in need of nursing to the Hospital, and it is to be hoped that something in this direction will be possible in Cambridge when extension of the Hospital takes place.

The deaths and death-rate from Measles among persons belonging to the district during the previous twenty years are set out in the following table :—

	Deaths.	Death-rate.		Deaths.	Death-rate.
1891	0	0·00	1901	2	0·05
1892	0	0·00	1902	44	1·14
1893	0	0·00	1903	0	0·00
1894	25	0·66	1904	12	0·30
1895	0	0·00	1905	9	0·23
1896	0	0·00	1906	1	0·02
1897	0	0·00	1907	0	0·00
1898	35	0·92	1908	33	0·83
1899	0	0·00	1909	1	0·02
1900	1	0·02	1910	0	0·00
Annual average for years 1891—1900	6·1	0·16	Annual average for years 1901—1910	10·2	0·26

	Deaths.	Death-rate.
Annual average for years 1891—1910	8·1	0·21

Whooping Cough.

Number of Deaths	0
Death-rate per 1,000 living ...	0·00
Death-rate for England & Wales...	0·21

The deaths and death-rate from Whooping Cough among persons belonging to the district during the previous twenty years are set out in the following table:—

	Deaths.	Death-rate.		Deaths.	Death-rate.
1891	21	0·56	1901	0	0·00
1892	2	0·05	1902	5	0·13
1893	9	0·24	1603	7	0·18
1894	17	0·45	1904	0	0·00
1895	2	0·05	1905	0	0·00
1896	19	0·50	1906	16	0·40
1897	3	0·07	1907	0	0·00
1898	21	0·55	1908	32	0·80
1899	6	0·15	1909	0	0·00
1900	21	0·55	1910	8	0·20
Annual average for years. 1891—1900	12·1	0·32	Annual average for years. 1901—1910	6·8	0·17

	Deaths.	Death-rate.
Annual average for years 1891—1910	9·4	0·24

A weekly record of the Notifications of the principal Infectious diseases (excluding Pulmonary Tuberculosis) is set out in the table following.

Week ending.	Small-Pox.	Diphtheria (including Membranous Croup).	Erysipelas.	Scarlet Fever.	Enteric Fever.	Puerperal Fever.	TOTAL.
Jan. 7	...	1	...	6	...	...	7
,, 14	...	1	...	4	...	...	5
,, 21	...	1	1	8	1	...	11
,, 28	...	1	...	3	...	...	4
Feb. 4	...	1	1	4	...	...	6
,, 11	...	5	...	6	...	...	11
,, 18	...	2	...	9	...	...	11
,, 25	...	3	2	1	...	1	7
Mar. 4	..	4	...	1	..	...	5
,, 11	...	2	...	1	...	...	3
,, 18	...	2	...	1	...	...	3
,, 25	...	5	1	4	...	...	10
April 1	...	8	1	4	...	...	13
,, 8	...	2	...	6	...	1	9
,, 15	...	4	...	1	...	...	5
,, 22	...	1	...	1	...	...	2
,, 29	...	1	1	3	1	...	6
May 6	...	4	1	...	...	...	5
,, 13	...	...	...	6	...	...	6
,, 20	...	3	...	4	...	...	7
,, 27	...	...	...	1	...	...	1
June 3	...	1	...	3	...	...	4
,, 10	...	1	...	3	...	...	4
,, 17	...	...	...	2	...	...	2
,, 24	...	...	...	4	...	...	4
July 1	...	1	...	2	...	1	4
,, 8	...	...	4	1	...	1	6
,, 15	...	2	...	...	...	...	2
,, 22	...	2	1	1	...	...	4
,, 29	...	1	...	9	...	...	10
Aug. 5	...	2	...	2	...	...	4
,, 12	...	...	...	2	...	...	2
,, 19	...	...	1	3	...	...	4
,, 26	...	...	...	...	...	...	...
Sept. 2	...	1	1	1	...	...	3
,, 9	...	1	1	5	...	...	7
,, 16	...	...	...	15	...	...	15
,, 23	...	1	...	21	...	...	22
,, 30	...	3	...	22	...	...	25
Oct. 7	...	4	1	7	...	...	12
,, 14	...	1	1	13	...	...	15
,, 21	...	6	...	30	...	...	36
,, 28	...	2	2	11	...	...	15
Nov. 4	...	...	...	5	...	..	5
,, 11	...	2	1	9	...	...	12
,, 18	...	4	...	11	...	..	15
,, 25	...	5	...	12	...	...	17
Dec. 2	...	5	...	13	...	...	18
,, 9	...	8	1	21	...	1	31
,, 16	...	...	1	15	1	...	17
,, 23	...	4	1	8	...	...	13
,, 30	...	4	2	5	...	...	11
,, 31	...	...	...	1	...	...	1
TOTALS	...	112	26	331	3	5	477

PULMONARY TUBERCULOSIS.

The measures which it is possible for any Local Authority take in order to deal satisfactorily with any particular disease are very largely dependent upon the completeness or otherwise of their knowledge of the disease.

With regard to Pulmonary Tuberculosis it has always been perfectly evident that the number of cases likely to be notified under any voluntary system was never even approximately near the actual number of cases in existence.

By a series of Regulations of the Local Government Board, which have now come into force, all cases of Pulmonary Tuberculosis have been made compulsorily notifiable.

The first regulations (The Public Health (Tuberculosis) Regulations, 1908), came into operation on the 1st January, 1909, and relate to Poor Law cases. The second series (The Public Health (Tuberculosis in Hospitals) Regulations, 1911), came into operation on the 1st May, 1911, and extended the system of compulsory notification to all patients attending or being then inmates of "any hospital, dispensary or similar institution for the treatment of the sick, which is partially or wholly supported otherwise than from rates and taxes." In Cambridge this practically resolves itself into the notification of all in-patients or out-patients at Addenbrooke's Hospital.

The system of notification was finally made to cover all other cases, *i.e.*, those occurring in the private practice of any medical man or discovered by any School Medical Inspector, by the Public Health (Tuberculosis) Regulations, 1911, which came into operation on the 1st January, 1912.

The number of persons belonging to the Borough who were notified during the year is as follows:—

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.
Tuberculosis—Reg. 1908	3	–	–	1	1	1	1	1	–	1	–	–	9
,, Reg. 1911	–	–	–	–	8	1	4	4	–	1	–	1	19
Voluntary	1	3	1	2	3	2	–	1	1	1	1	1	17
	4	3	1	3	12	4	5	6	1	1	1	2	45

The more important provisions of the 1908 Regulations were given in my Annual Report for 1909, and as special powers are conferred upon the Council by the later Regulations, the more important of these are reproduced here.

Public Health (Tuberculosis in Hospitals) Regulations, 1911.

Notifications by Medical Officers.

Article IV.—(1) A Medical Officer of any Hospital, within the period of forty-eight hours after his first recognition of Pulmonary Tuberculosis in a person upon whom he is in medical attendance at the Hospital, shall complete, sign and transmit a notification of the case in the form shown in the Schedule to this Order to the Medical Officer of Health for the area within which the Hospital is situate.

(2) A Medical Officer of Health who receives a notification relating to a patient whose residence as described in the notification is not within the area for which he is Medical Officer of Health, shall forthwith transmit the notification to the Medical Officer of Health for the area in which the patient's residence is situate, and shall at the same time inform the Medical Officer of the Hospital that

he has done so and shall give to him the name and address of the Medical Officer of Health to whom the notification has been sent. Any expense incurred by the Medical Officer of Health in carrying out the duties imposed upon him by this sub-division shall be defrayed by the Council of the area for which he is Medical Officer of Health.

Exception and application of enactments, and Special Powers of Councils.

Article VII.—(1) Nothing in these Regulations shall have effect so as to apply, or so as to authorise or require a Medical Officer of Health or a Council, or any other person or authority, directly or indirectly, to put in force with respect to any patient in relation to whom a notifiation in pursuance of these Regulations has been transmitted to a Medical Officer of Health, any enactment which renders the patient, or a person in charge of the patient, or any person, liable to a penalty, or subjects the patient to any restrictions, prohibition, or disability affecting himself, or his employment, occupation or means of livelihood, on the ground of his suffering from Pulmonary Tuberculosis.

(2) Subject as aforesaid, a Council on the advice of their Medical Officer of Health, in the case of a patient, in relation to whom a notification in pursuance of these Regulations has been transmitted to the Medical Officer of Health, may :—

(i.) take the necessary measures to secure disinfection of infected articles and the cleansing or disinfection of premises which have been used by the patient ;

(ii.) take the necessary measures for the safe disposal or destruction of infectious discharges of the patient ;

(iii). supply all such reasonable assistance, facilities and articles as will tend to diminish the risk of infection arising from the conditions affecting the use or occupation of any room, when used or occupied by the patient as a sleeping apartment.

(iv.) furnish, for the use of the patient, on loan, or otherwise, any appliance, apparatus, or utensil, which may be of assistance in preventing the spread of infection ; and

(v.) appoint such officers, do such acts and make such arrangements as may be requisite for giving advice and for carrying out the provisions of these Regulations, and of the Public Health (Tuberculosis) Regulations, 1908 :

Provided that nothing in this sub-division shall be deemed to authorise a Council to take any of the measures herein mentioned at any Hospital.

(3) A Council, on the advice of their Medical Officer of Health, may provide and publish or distribute in the form of placards, handbills, or leaflets, suitable summaries of information and instruction respecting Pulmonary Tuberculosis and the precautions to be taken against the spread of infection from that disease.

Public Health (Tuberculosis) Regulations, 1911.

Notification by Medical Practitioners (including School Medical Inspectors).

Article IV.—(1) "Every Medical Practitioner excepting Poor Law Medical Officers and Officers of Public Institutions (hospitals, asylums, prisons) Medical Examiners of Insurance Companies, and Medical Examiners of passengers and crews of Emigrant Ships, attending on or called in to visit any person shall, within forty-eight hours after first becoming aware that such person is suffering from Pulmonary Tuberculosis, complete, sign, and transmit a notification of the case in the form shown in the Schedule to these Regulations to the Medical Officer of Health for the area within which the place of residence of the person is situate:

Provided that a Medical Practitioner shall not be required under these Regulations to notify any case of Pulmonary Tuberculosis which has already, to his knowledge, under these Regulations or under the Poor Law Regulations or under the Hospital Regulations, been notified to the Medical Officer of Health for the area within which the place of residence of the patient is situate.

(2). Every Medical Practitioner who is a School Medical Inspector shall, within the period of forty-eight hours after he has inspected any children attending a Public Elementary School, complete and sign a notification in the form shown in the Schedule B. to these Regulations of all cases of Pulmonary Tuberculosis of which he became aware during the course of inspection, and shall transmit the notification to the Medical Officer of Health for the area within which the Public Elementary School is situate."

Duties of Medical Officer of Health.

ARTICLE VII.—(1) A Medical Officer of Health who receives from a Medical Practioner a notification relating to a patient whose place of residence is not within the area for which he is Medical Officer of Health, shall forthwith transmit the notification to the Medical Officer of Health for the area in which the place of residence of the patient is situate, and shall at the same time inform the Medical Practioner that he has done so and shall give to him the name and address of the Medical Officer of Health to whom the notification has been sent. Any expense incurred by a Medical Officer of Health in carrying out the duties imposed upon him by this sub-division shall be defrayed by the Council of the area for which he is Medical Officer of Health.

(2) Every Medical Officer of Health shall enter in a Register to be kept by him for that purpose the full particulars contained in every notification received by him under these Regulations or under the Poor Law Regulations or under the Hospital Regulations and relating to a patient whose place of residence is situate within the area for which he is Medical Officer of Health. The said Register shall be

kept in the custody of the Medical Officer of Health and shall not be open to inspection by any person other than a person specially authorised by resolution of the Council, the Medical Officer of Health for the Administrative County within which the area is situate, and School Medical Inspector acting within the area, or an Officer of the Local Government Board or of the Board of Education.

Article VIII.—Upon the receipt of a notification under these Regulations or under the Poor Law Regulations or under the Hospital Regulations the Medical Officer of Health, or an Officer acting under the instructions of the Medical Officer of Health, shall make such inquiries and take such steps as may appear to him to be necessary or desirable for preventing the spread of infection and for removing conditions favourable to infection :

Provided that nothing in this Article shall be deemed to authorise a Medical Officer of Health or other Officer to take any steps herein mentioned at any Poor Law Institution or any Hospital.

Special Powers of Councils.

Article IX.—(1) For the purposes of these Regulations and of the Poor Law Regulations and of the Hospital Regulations a Council, on the advice of their Medical Officer of Health, may supply all such medical or other assistance, and all such facilities and articles as may reasonably be required for the detection of Pulmonary Tuberculosis, and for preventing the spread of infection and for removing conditions favourable to infection and for that purpose may appoint such officers, do such acts and make such arrangements as may be necessary :

Provided that nothing in this sub-division shall be deemed to authorise a Council to take any of the measures herein mentioned at any Poor Law Institution or any Hospital.

(2) A Council, on the advice of their Medical Officer of Health, may provide and publish or distribute in the form of placards, handbills, or leaflets, suitable summaries

of information and instruction respecting Pulmonary Tuberculosis and the precautions to be taken against the spread of infection from the disease.

Exception and Application of Enactments.

Article XIII.—Nothing in these Regulations shall have effect so as to apply, or so as to authorise or require a Medical Officer of Health or a Council, or any other person in authority, directly or indirectly, to put into force with respect to any patient in relation to whom a notification in pursuance of these Regulations has been transmitted to a Medical Officer of Health any enactment which renders the patient, or a person in charge of the patient, or any other person, liable to a penalty, or subjects the patient to any restriction, prohibition, or disability affecting himself, or his employment, occupation or means of livelihood, on the ground of his suffering from Pulmonary Tuberculosis.

Examination of "Contacts" of Phthisis Patients.

On November 15th, 1910, the Public Health Committee passed a Resolution to the effect that "Mr. Apthorpe Webb be provisionally appointed to visit the "contacts" of persons suffering from Tuberculosis for a period of twelve months at a salary of 20 guineas."

The year's trial has now been completed, and the following report has been prepared by Dr. Webb upon his work.

The number of families visited was thirteen, and the number of "contacts" examined was 32. Among those were found two early cases of Phthisis.

The number of notified cases is certain to increase greatly now that compulsory notification of all cases of Phthisis has come into operation, and it is therefore reasonable to assume that the number of families willing to have the benefit of this arrangement will increase also. It has, therefore, been decided to give the present arrangements a more extended trial, and Dr. Webb has been re-appointed for another period of twelve months.

Only one examination was made of each person. It has been decided that at least one other visit should be made to examine all those whose examination proved negative on the first occasion.

Report by Dr. Webb on examination of "Contact Cases" of Phthisis.

During the year November, 1910—November, 1911, I have examined the following families at the request of the Medical Officer of Health.

In one case (B) I found a boy who was in bed suffering from Influenza. On careful examination one was able to detect quite early signs of Phthisis. This diagnosis was subsequently confirmed by Dr. L. Humphry, who admitted the child for open-air treatment at Addenbrooke's Hospital.

Another case (V.B.) was so suspicious that at my request she was seen by Dr. Aldren Wright at the Hospital who confirmed my suspicions.

With regard to one case (H) the father declined to allow me to examine any of the family.

In no case has any difficulty arisen with the medical men attending the original patient, and in several cases no medical man was in attendance.

Although only two early cases were found I would point out that both of them in all probability would have passed unnoticed until the disease had reached such a state as to be almost incurable ; being discovered early, however, the best means available were taken to effect a cure.

Both these cases would have been eminently suitable for admittance to a Sanatorium, and emphasize the necessity for such institutional treatment.

In all cases instructions were given as to the best mode of procedure in the homes, such as cleanliness, open windows, the necessity of separate sleeping accomodation, and disposal of the sputum.

These instructions were very gratefully received and an evident desire was shown in all cases to carry them out as far as possible.

Those patients who have been to the Sanatorium were very anxious to go back there ; not only had their condition been much improved, but the people living in the same house with them, and whom I examined, had evidently been brought to appreciate the necessity of hygienic surroundings.

Although the discovery of early cases is, in the main, the reason for the examination of "contacts," I have been led to attach almost as much importance to the opportunity thus afforded of educating the family of the original patient in the means to be taken for their own safety.

(Signed)

F. E. APTHORPE WEBB.

The cases notified are visited by the Health Visitors (with the exception of those who are under medical care) and the measures recorded in previous reports are advised and generally carried out. Four small shelters have been given out on loan to cases, and for six months (April to October) cases (16 in all) were admitted to an empty ward of the Infectious Diseases Hospital with very great benefit.

The following particulars regarding the cases kept under observation by the Health Visitors are taken from the records kept by the Visitors.

Sex of cases—Males, 25. Females, 20.

Ages :—

Under 10 years of age	1
10 and under 20 years	8
20 „ 30 „	16
30 „ 40 „	6
40 „ 50 „	6
50 „ 60 „	2
60 „ 70 „	2
70 „ 80 „	1
Ages not stated	3

Duration of Illness before Notification :—

Under 3 months	8 cases.
3 months and under 6 months ...	8 „
6 months and under 1 year	6 „
1 year and under 2 years	9 „
2 years „ 3 „	3 „
3 „ „ 4 „	2 „
6 „ „ 7 „	1 „
9 „ „ 10 „	1 „
No information as to duration ...	6 „

Family History :—In 14 cases it was definitely stated that no previous cases had occurred in the family. In 19 cases there was a history of previous Phthisis in the family.

Work :—14 cases were able to be more or less at work.

Sleeping Accommodation :—In 23 cases someone shared the same bedroom but not the bed, and in 18 the patient occupied a bed along with another member of the family.

Overcrowding was noted in three instances.

Amount of Food:—In 10 cases this was found to be insufficient.

Other conditions found:—In 6 the windows could not be sufficiently opened; in 10 full use was not made of the means of ventilation; and in 7 some other insanitary condition was found, *e.g.*, dampness. In 4 the houses were dusty; one house was reported as dirty.

Precautions:—Only 2 were reported not to be taking any precautions to prevent infection of others.

Mortality from Tuberculous Phthisis in 1911.

Number of deaths	30
Death-rate per 1,000 living ...	0·75

The number of deaths is sixteen less than during the previous year, and is the lowest number of deaths recorded during the past twenty-eight years, and is sixteen below the average yearly number of deaths for the past twenty years.

Twenty of the deaths were of males, and ten of females.

Ages at Death.

Years.	1–	5–	10–	15–	20–	25–	35–	45–	55 and upwards
Males.	—	—	—	2	3	2	5	3	5
Females	—	—	—	2	2	2	1	2	1

Twenty-four of the deaths belonged to the St. Andrew-the-Less Sub-district. One of the deaths occurred in the Infectious Diseases Hospital, three in the Union Workhouse, one in Addenbrooke's Hospital, and one in Fulbourn Asylum.

The occupations were :—

Bricklayer	1
Commercial Traveller	1
Draper's Assistant	1
Elementary School Teacher	1
Engineer's Apprentice	1
Farrier	1
Fishmonger's Assistant	1
House Painter	1
Labourer	5
Milliner's Apprentice	1
Motor Bus Conductor	1
Police Constable	1
Scientific Instrument Maker	1
Stonemason	1
Tailor	2

In the remainder, the designation under this heading is that of Widow, 1; Wife, 6; Son, 1; Daughter, 2.

The deaths and death-rate from Phthisis among persons belonging to the district, during the past twenty years, are set out in the following table :—

	Deaths.	Death-rate.		Deaths.	Death-rate.
1891	51	1·37	1901	48	1·25
1892	59	1·59	1902	42	1·09
1893	49	1·31	1903	48	1·24
1894	58	1·55	1904	38	0·97
1895	57	1·52	1905	40	1·02
1896	56	1·48	1906	42	1·07
1897	54	1·43	1907	41	1·04
1898	45	1·18	1908	44	1·10
1899	41	1·07	1909	33	0·88
1900	47	1·23	1910	46	1·15
Annual average for years 1891—1900	51·7	1·37	Annual average for years 1901—1910	42·2	1·07

	Deaths.	Death-rate.
Annual average for years 1891—1910	46·9	1·22

Other Tubercular Diseases.

Number of Deaths 13
Death-rate per 1,000 living 0·32

The number of deaths registered from these diseases is three more than in 1910.

Females contributed 6 deaths, and Males 7; 4 of the deaths were of children under 5 years of age.

AGES AT DEATH.

Years	0–	1–	2–	5–	10–	15–	20–	25–	35–	45–	55 & upwards
Males	–	2	2	–	–	–	1	–	1	1	–
F'mles	–	–	–	2	1	–	1	1	–	–	1

The deaths from these diseases among persons belonging to the district during the past ten years are set out in the following table:—

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	Average for years 1901—1910	1911
Tubercular Meningitis...	9	7	4	9	6	3	6	8	7	2	6	5
Tubercular Peritonitis and Tabes Mesenterica	4	1	4	–	3	–	3	4	1	2	2	–
Other Forms	7	12	7	9	1	2	7	8	7	6	7	8
	20	20	15	18	10	5	16	20	15	10	15	13

The following is a list of streets in which deaths from Phthisis and other Tuberculous disease have occurred during the year :—

Albion Row	2	Madingley Road	1
Abbey Street	1	Mill Road	4
Blossom Street	1	Nelson Street	1
Christ's Lane	1	New Street	1
Church Street	1	Newmarket Road	3
City Road	1	Norfolk Street	1
Cross Keys Yard	1	Riverside	1
Cyprus Road	1	Romsey Road	1
East Road	3	Russell Street	1
Emery Street	1	Seymour Street	1
Flower Street	1	Stanley Road	1
Great Eastern Street	1	Thoday Street	1
Gwydir Street	2	Victoria Road	1
Hooper Street	1	Warkworth Street	1
King Street	1	York Street	4
Little St. Mary's Lane	1		

Cancer and other Malignant Diseases.

Number of Deaths 38
Death-rate per 1,000 living 0·94

The number of deaths registered from these diseases is fifteen less than during the year 1910, and two below the yearly average number of deaths for the past twenty years.

Seventeen of the deaths were of males, and twenty-one of females. Twenty-four were registered as Carcinoma, one as Sarcoma, and thirteen as Cancer or Malignant Disease.

The following is a list of parts affected, and the number of deaths from each :—

Parts affected.	Male.	Female.
Lip, Tongue, Lower Jaw	2	1
Face	1	—
Neck	1	—
Throat	2	—
Oesophagus	2	—
Larynx	1	—
Breast	—	4
Glands	1	—
Liver	1	1
Stomach	2	4
Intestines	3	4
Kidney	1	—
Uterus and Appendages	—	6
Not stated	—	1

The deaths and death-rate from Cancer among persons belonging to the district, during the past twenty years are set out in the following table :—

	DEATHS.	DEATH-RATE.		DEATHS.	DEATH-RATE.
1891	48	1·30	1901	33	0·85
1892	30	0·80	1902	23	0·59
1893	33	0·88	1903	34	0·88
1894	53	1·42	1904	44	1·13
1895	41	1·09	1905	46	1·17
1896	42	1·11	1906	34	0·86
1897	27	0·71	1907	47	1·19
1898	34	0·89	1908	49	1·23
1899	40	1·05	1909	54	1·35
1900	44	1·15	1910	52	1·30
Annual average for years. 1891—1900	39·2	1·04	Annual average for years. 1901—1910	41·6	1·06

	DEATHS.	DEATH-RATE.
Annual average for years 1891—1910	40·4	1·05

Influenza.

Number of deaths	1
Death-rate per 1,000 living	0·02

The deaths and death-rate from Influenza among persons belonging to the district during the past ten years are set out in the following table :—

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Deaths	9	11	6	7	10	2	14	9	16	6
Death-rate	0·23	0·28	0·15	0·17	0·25	0·05	0·35	0·22	0·39	0·15

Diseases of the Respiratory System.

Number of deaths	69
Death-rate per 1,000 living... ...	1·72

The number of deaths recorded from these diseases is the lowest for many years. The greatest reduction is in deaths from Bronchitis and among persons 65 years of age and upwards. The reason for this is probably to be found in the continuance of the warm weather well on into the last quarter of the year.

The following table shows the age distribution of the deaths :—

	0–	1–	5–	10–	15–	20–	25–	35–	45–	55–	65 and upw'rds	Total.
Bronchitis ...	4	1	—	—	1	—	—	—	—	5	12	23
Pneumonia ...	—	5	—	—	—	—	4	2	2	2	4	19
Broncho-Pneumonia .	7	3	1	—	—	—	—	1	—	—	4	16
Others ...	—	3	—	—	—	1	1	—	1	2	3	11
Totals ...	11	12	1	—	1	1	5	3	3	9	23	69

The deaths recorded from the most important members of this group of diseases amongst persons belonging to the district during the past ten years are set out in the following table :—

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	Average for years 1901—1910
Bronchitis ...	47	52	49	45	44	41	38	33	40	32	42
Pneumonia...	17	24	22	17	21	18	14	23	19	20	19
Broncho-Pneumonia	8	19	10	14	9	28	20	21	10	19	16
Others ...	14	3	3	4	—	12	8	4	6	15	7
Total ...	86	98	84	80	74	99	80	81	75	86	84
Death-rate	2·24	2·54	2·17	2·06	1·89	2·52	2·03	2·04	1·88	2·15	2·14

Part iii.

General Sanitation.

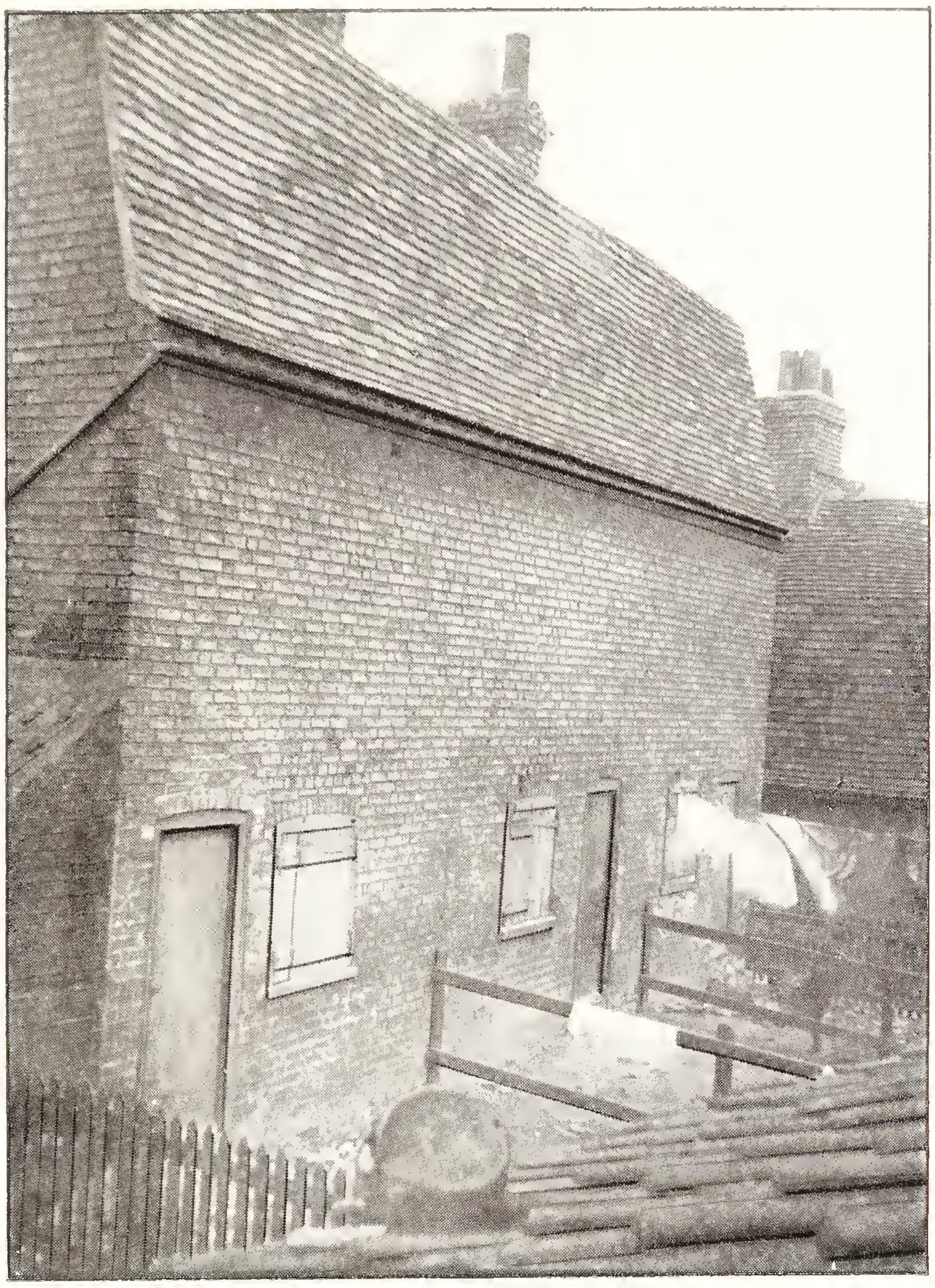
Housing.

The Census figures relating to housing are not yet available, but the following table, showing the number of houses and the number of empty houses at different rateable values in the Parish of Cambridge, has been prepared from information kindly supplied by Mr. Campbell, the Assistant Overseer :—

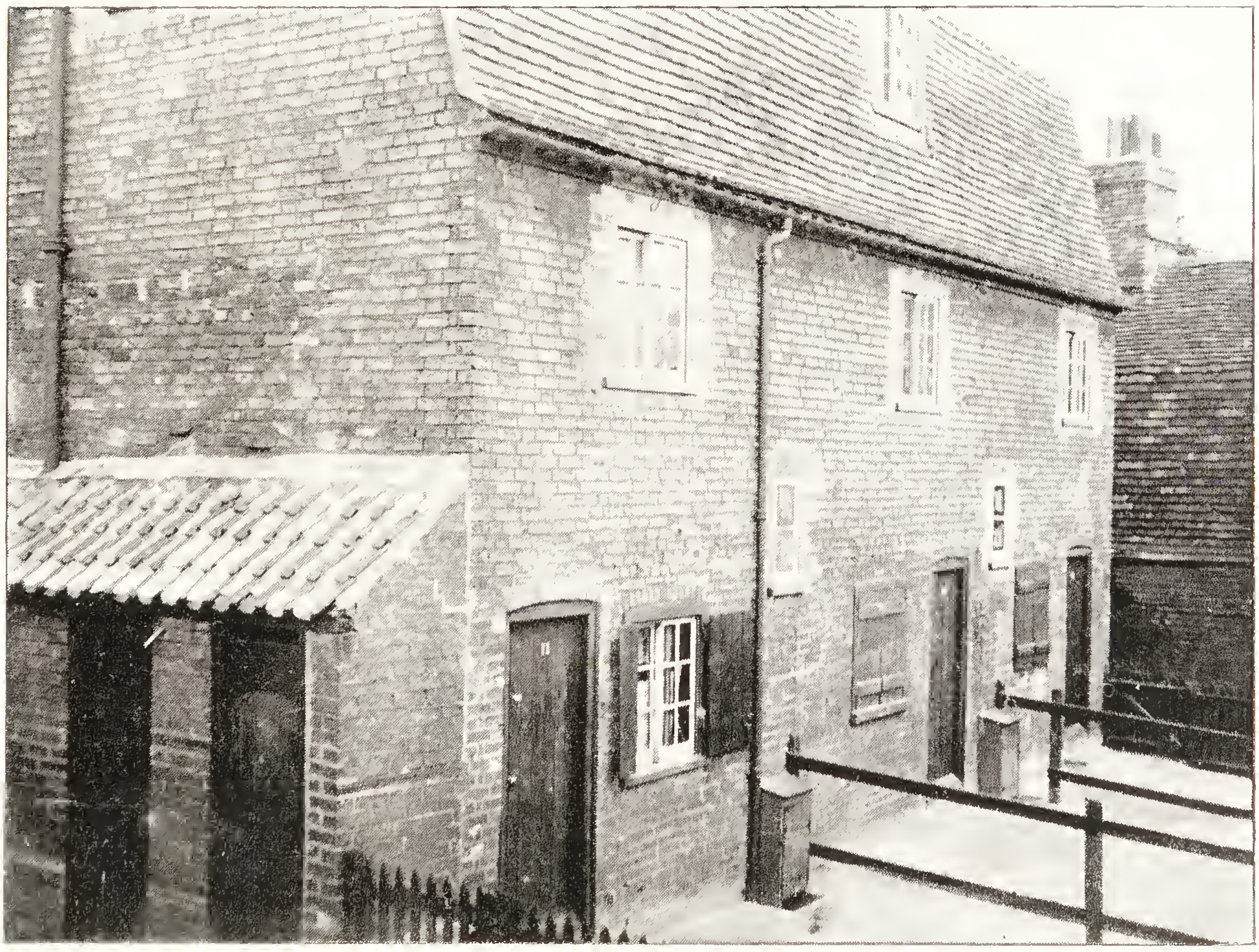
Rateable Value.	Total number of houses*	Empty houses.	Percentage empty to total.
Under £4.	30	23	76·6
£4 and under £5 10s.	424	13	3·7
£5 10s. ,, £7	983	9	0·9
£7 ,, £10	2100	11	0·5
£10 ,, £15	2620	20	0·7
£15 ,, £20	1000	15	1·5
£20 ,, £30	955	16	1·6
£30 ,, £50	1000	11	1·1
£50 and over	882	6	0·6
Totals	9994	124	1·24

*At April, 1912.

The very high proportion of empty houses rated at less than £4 is probably accounted for by their general unfitness for habitation, and it will be seen below that the number of houses closed by Order as unfit for habitation is practically the same as the number returned by the Assistant Overseer as empty at this rent.



1. Dwelling houses in Kettle's Yard. The photograph shows very clearly the insufficiency of the lighting and ventilation.



2. The same houses after being repaired.

Plans for New Houses.

The number of plans passed each year since 1901 is as follows:—

1901	158	1907	51
1902	229	1908	64
1903	106	1909	31
1904	103	1910	87
1905	98	1911	110
1906	124		

The supervision of the erection of new houses and other buildings is exercised by the Building Inspector, who is a member of the Borough Surveyor's staff. Only in exceptional cases do plans come before the Health Committee or the Medical Officer.

Sufficient land for the erection of fifty houses has been purchased by the Corporation in Stanley Road, and application has been made to the Local Government Board for sanction for a loan sufficient to erect eighteen houses as a first instalment.

It is proposed to erect two separate blocks, one of six houses and a second of twelve single room tenements.

In the first block the two end houses have on the ground floor a living room measuring 14′ 6″ × 12′, with scullery, coal cupboard, and w.c., and upstairs three bedrooms.

The rents of these two would be 4/6 per week including rates and water.

Other two houses have living rooms 16′ × 11′ 9″, with scullery, and two bedrooms upstairs. Rents 3/6 per week.

The last two in the block have smaller living rooms, 16′ × 9′, and two bedrooms. Rents 3/- per week.

The four smaller cottages would have the use of two wash-houses. The two larger end houses would each have its own washing accommodation.

The second block, consisting of twelve single room tenements, is intended for the use only of old people.

Six of the tenements are on the ground level, and six upstairs. Each consists of a single bed sitting room, the bed being in a recess which has a window of its own, thus providing for light and ventilation of the sleeping part, which could be curtained off without objection.

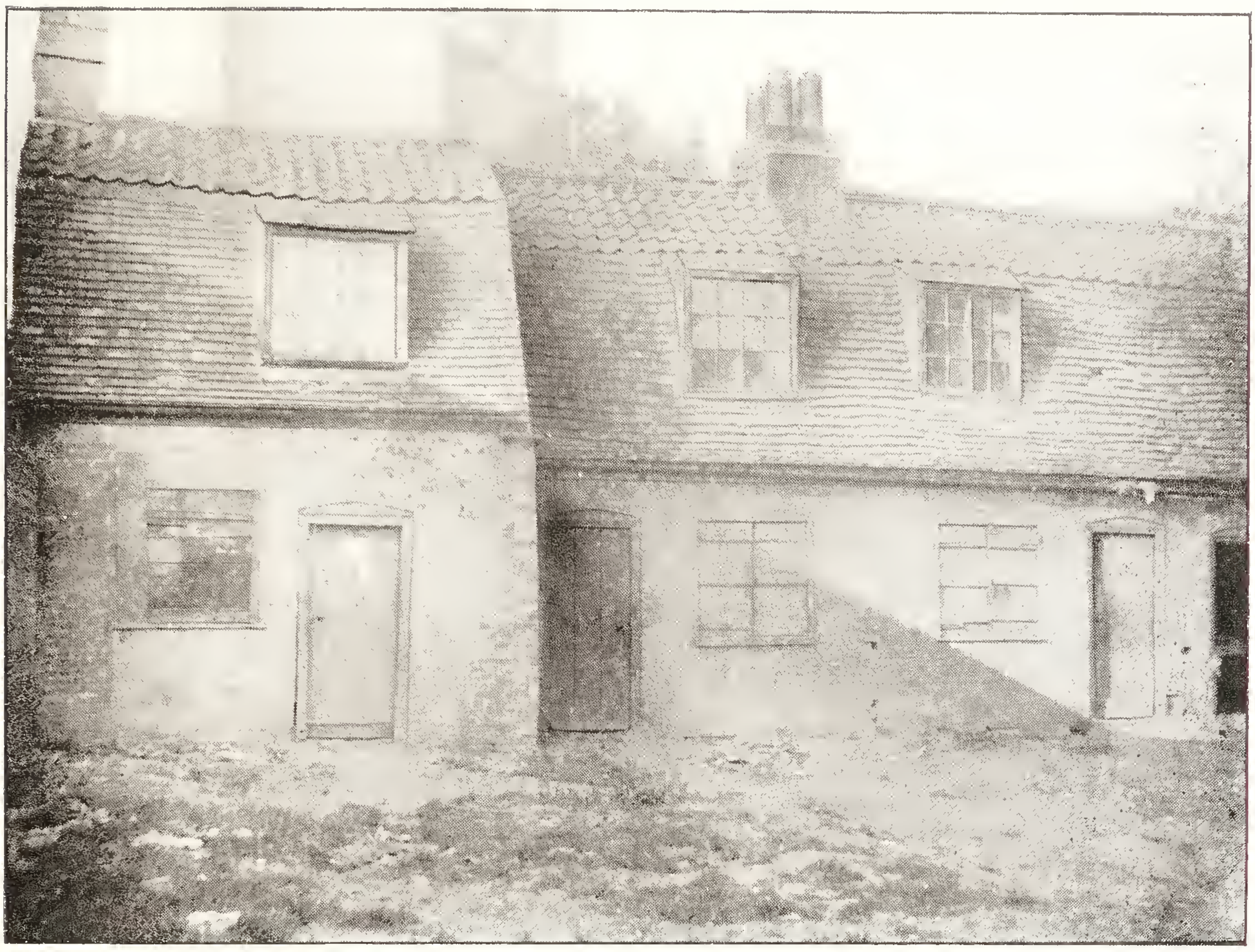
Some of the rooms have a scullery which is partitioned off; the others have a larger room with the scullery accommodation in it.

The rents for these tenements would be 2/- for the upper rooms, and 2/3 for the ground floor rooms per week.

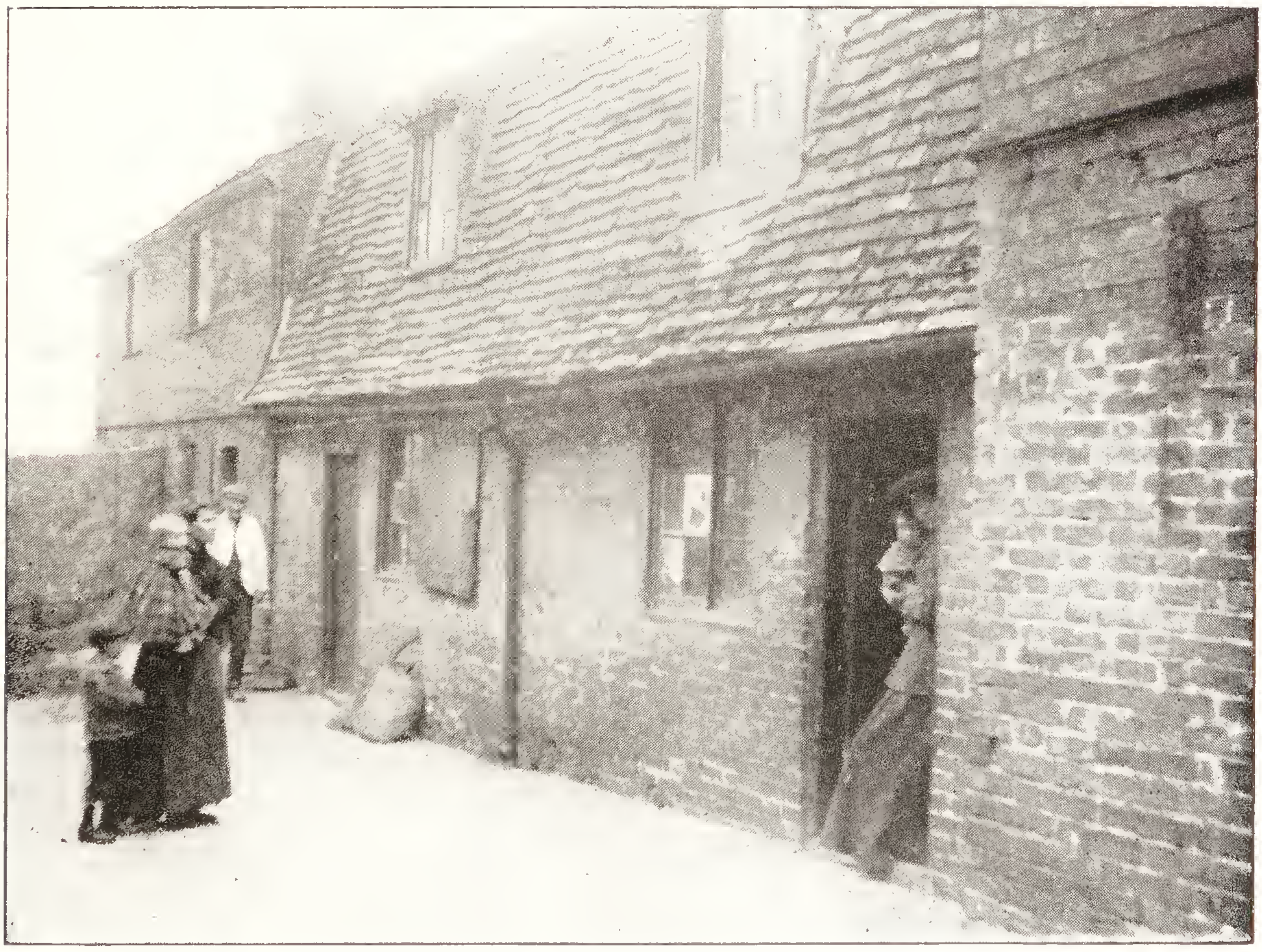
Housing and Town Planning Act, 1909.

The houses dealt with by Closing Orders under the Housing and Town Planning Act were:—

John's Place... ...	6.	Those are being put into habitable repair.
Porchers Yard ...	10.	Demolished by the Owner.
Cross Keys Yard...	5.	Three are now being repaired.
Brewhouse Lane...	6.	These are being put into habitable repair.
Compasses Passage	5.	Will probably be demolished.



3. Houses in Kettle's Yard closed and now demolished.



4. Houses in Shamrock Passage. The two nearest have now been demolished.

Of the houses closed by Order in 1910, the seven in Brown's Yard have been thoroughly repaired and converted into six houses. Two in Shamrock Passage and four in Kettle's Yard have been demolished by the Local Authority.

The number of houses visited in the course of house to house inspection, under Section 17 (1) of the Housing and Town Planning Act, is 151. In addition, 318 houses were visited by the Inspectors in connection with infectious disease or on account of complaints received.

Removal of House Refuse.

Street scavenging and the removal of house refuse are carried out by the Borough Surveyor's department.

A daily collection of refuse is made in the centre of the town, while in other districts a regular collection is made twice, three, and in some streets four times a week.

Water Supply.

The water supply is in the hands of the Cambridge University and Town Waterworks Company, and is derived from wells to the east of Cambridge at Cherryhinton and Fulbourn. The supply is derived mainly from the Lower Chalk and also from the Greensand. The average daily supply per head is 26 gallons. During the exceptionally dry weather in the Autumn the full supply was maintained without restriction. In this respect Cambridge is most fortunately situated.

The following report upon the bacteriological examination of the water during 1911 has been prepared by Dr. G. S. Graham Smith:—

"The results of the bacteriological examinations of the water resemble those obtained in previous years.

Except on 7 occasions (Jan. 20th, 30th; April 13th, 19th; Sept. 4th, 5th, 9th), the water was examined every day during the year for the presence of B.Coli. These examinations show that during dry periods B.Coli is generally absent.

During 1911, which was exceptionally dry, it was often absent during long periods, *i.e.*, it was absent January 5th to March 10th, March 14th to April 3rd, April 13th to June 16th (except on 3 occasions), June 30th to August 23rd, September 17th to October 15th (except on 2 occasions). During all these periods the rainfall was small.

B.Coli was present continuously from June 21st to 29th, October 16th to November 3rd, November 13th to 25th, and (except on four occasions) from December 5th to 24th, all exceptionally wet periods.

Taking the whole year B.Coli was present in the water on 84 days and absent on 274 days (7 not investigated).

Organisms capable of growing on gelatin were fairly numerous during January, February, March, April, October, November, and December. They were decidedly more numerous during and after rainy periods than at other times. Except at the end of June, few were present during the summer months."

There are very few houses within the municipal boundary which are still unprovided with the public supply. At the beginning of the year only eight were known to have private supplies from wells or springs, and the wells supplying four of those have now been abandoned as a source of drinking water.

Slaughterhouses and Meat Inspection.

There are 24 private slaughterhouses in Cambridge, three of which are subject to annual licence. The premises have undergone considerable improvement and are structurally in as satisfactory a condition as can reasonably be expected. The frequent inspections which have been made have shown also that they are well kept.

The Butchers' Vigilance Insurance Society, which was formed in 1910, has been of some assistance in dealing with unsound meat. The rules of the Society have been slightly altered and now provide as follows :—

1. Only members of the Cambridge and District Butchers' Association can join. On entering, members pay 5/- per head for all cattle slaughtered upon a weekly average throughout the year.

2. Only half compensation to be paid during the first six months of membership, and full compensation (the actual price) thereafter.

3. Each member shall pay 6d. for each beast slaughtered during the week.

4. No payment to be made upon any beast costing less than £12, or known to be unhealthy.

5. No payment to be made upon any cow or bull slaughtered.

6. Notification of any suspected meat must be made to the Sanitary Authority, and intimation of intention to claim compensation must be made at once.

The duty of meat inspection is undertaken by Inspector Dain, who holds the certificate of the Royal Sanitary Institute for meat inspection. As far as possible, visits are paid by him to slaughterhouses when slaughtering is going on as well as at other times. He also attends at the Cattle Market on Mondays. In this way fairly close touch is kept with the trade, and it has thus frequently happened that unsound and diseased meat which doubtless would have been reported to the Health Department has been at once seen and dealt with.

It is unfortunate, however, that all butchers in the district are not members of the Insurance Society, and that risks from all classes of animals are not covered.

The amount of meat and other articles of food which have been seized or surrendered voluntarily during the year is shown below :—

	Weight.	
Beef	4,282 lbs.	(of which 3,582 lbs. were voluntarily surrendered).
Pork	140 ,,	Voluntarily surrendered.
Fish	1,344 ,,	
Cheese ...	14 ,,	
Chickens ...	30	
Apples ...	4½ bushels	

Offensive Trades.

There are no offensive trades in the district. The Public Health Acts Amendment Act, 1907, Section 51, gives the Local Authority power to add (with the consent of the Local Government Board) various trades to the list mentioned in tho Public Health Act, 1875. In several localities fish frying, dealing in rags and bones, hides and skins, and various other trades have been added, and, if necessity arose, similar steps could be taken in Cambridge.

Ice Cream Premises.

Those are regularly visited and special attention is paid to them during the spring and summer, when the greatest trade is carried on.

Common Lodging Houses.

There are ten registered lodging houses in the Borough. Their situation and the accommodation provided are :—

Premises.	Number of Rooms.	Accommodation.
The Three Compasses, 140, East Road ...	3	21 (men and women).
George IV., 71, East Road	3	21 (men only).
Wheelwrights' Arms, 82, East Road... ...	3	14 ,,
Horse and Jockey, 83, East Road	3	15 ,,
The Pelican, 154, East Road	3	12 ,,
The Central, 105, East Road	2	32 ,,
The Victoria, 2, New Street	10	46 ,,
The Butcher's Arms, 231, Newmarket Road	7	35 (men and women).
The Race Horse, 244, Newmarket Road ...	4	18 (men and women).
The Salmon, 68, Newmarket Road	4	20 (men only).

Houses Let in Lodgings.

In order to discover to what extent the practice of sub-letting houses occupied by the working classes existed in Cambridge, I have had inspections made of all property known to be let in this way.

It has been stated that the practice of sub-letting is on the increase, but, whether this is so or not, there are certain features connected with it which it seemed desirable should be investigated.

The usual practice is for the tenant to furnish a house to some extent, and let it out to a number of sub-tenants, each of whom takes one room or in some cases two rooms. In some of the houses the sub-tenants also have the use in common of a scullery or back kitchen for washing, and in all common use is made of stairs, passages, closets, etc. In none of the places visited does the original tenant live upon the premises.

The rents charged for the rooms are very high, frequently more being charged for one room than the whole house when unfurnished. The rooms are let by the night, or if paid for weekly the Sunday's lodging is given free. Rental includes the use of furniture, generally a bed with bedding, and a table with two or three chairs. In one house washing of bed sheets is also included in the rent.

The occupiers of the rooms are mostly engaged as street hawkers or in some occupation where employment is intermittent and uncertain, and their tenancy of the rooms is frequently decided by the fact that their ability to pay rent for more than one night is not assured, and that they are unable to show a paid up rent book to a house agent. A number of them have occupied the same rooms for years, but most of them are migratory and belong practically to the class usually found in common lodging houses.

The total number of houses known to be let out in rooms is only nine, viz. :—

10, 12, 14 & 16, New Street :

These are two storey cottages, with two rooms on each floor. There are three tenants in each house, having one room each, and sharing the small back room on the ground floor for general purposes, *e.g.*, washing. The only exception to this is at No. 14, where one tenant has two rooms at 6/- per week.

The two front rooms are each let at 4/- a week, and the smaller back room upstairs at 2/4 per week. The rent in the usual way of letting would probably be about 2/9 per house per week.

The total number of occupiers in the four houses is 19 adults and four children, an average of just under two persons per room.

There is a separate closet, provided with flushing cistern, for each cottage.

There is one water tap for the four houses in a reasonably convenient position.

7 & 9, Staffordshire Street :

This was originally two houses, but is now let as one, and contains six apartments.

There are five occupiers here. One has two rooms, and the others one room each. Each pays 4/- per week ; the probable rent in the usual way of letting would be 3/- or 4/- per week.

The total number of occupiers is 9 adults and 3 children.

There is one water closet, provided with flushing apparatus, in good condition.

40, New Street :

This was originally a small public house. There are two tenants occupying two rooms each, and two tenants with one room each.

The total number of occupants is seven adults and one child.

The sets of two rooms are let at 3/- and the single rooms at 2/- per week, a total rental of 10/-.

There are two w.c.'s.

One of the tenants here has occupied her two rooms for 23 years, and another for 9 years.

232, Newmarket Road :

This was formerly a public house and is much larger than the ordinary cottage.

There are three occupiers with two rooms each, the rent paid being 4/- and, in one case, 5/- per week.

The total number of occupants is six adults and seven children.

There is one w.c. provided with a flushing cistern.

4 & 6, River Lane :

The two houses are immediately at the back of the Butchers' Arms Common Lodging House, and are let out by the lodging house keeper. They share the yard and closets with the Common Lodging House and are practically part of the same business.

There are two rooms in each house, each let separately at 4/- per week. The rent of the houses let in the usual way would probably be about 2/6 each per week.

At the time of inspection there were eight adults and two children in the two houses.

In most of these houses no exception could be taken to the character of the tenancy.

In only two instances was a family, consisting of Father, Mother, and 2 or 3 children, found occupying a single room. One was at 7 and 9, Staffordshire Street, where four persons slept in one room of about 1,100 cubic feet. There is one bed in the room which is used by the parents. The two children (aged 5 and 8 years) are said to sleep upon a shake-down on the floor, made up for them at night. This family has lived here for twelve months. The other case was at 14, New Street, where there are Father, Mother, and three children, aged 8, 5, and 2 years. It was found however on enquiry of the owner of the property that they paid for two rooms and had been sub-letting one of them for a short time.

The state of repair and cleanliness of these houses was fair, and as regards water supply and closet accomodation, they are satisfactory. Indeed they compare favourably in every respect with the cottages in the same neighbourhood.

In a few of the rooms the windows did not open, with the result that in the early forenoon the atmosphere was decidedly unwholesome. In all the houses there was some place where clothing could be washed. In three instances the yard was found to require some attention in the way of paving, and at one house the drainage will probably require to be relaid.

One or two of the tenants seemed to feel the want of a suitable place to keep food and crockery.

A large number of the rooms had no cupboards at all, and the food and dishes were kept standing on the table.

With regard to the applicability of bye-laws for houses let in lodgings to those houses, without expressing any opinion upon a purely legal point, there are still a few matters which may be considered here.

In the first place there is no definition of the term "house let in lodgings," but in the Model Bye-laws of the Local Government Board it is stated that "Lodging house" means a house or part of a house which is let in lodgings or occupied by members of more than one family." The term "house let in lodgings" would therefore apply to every house or part of a house so let out, which is not a common lodging house. There are, however, many houses let in lodgings which it is undesirable or unnecessary to bring within the range of these bye-laws, and in order to exclude those houses a special exemption clause has been inserted in the Model Bye-laws. The bye-laws would therefore be limited to houses which are not common lodging houses but are resorted to by the same class of people, and which are occupied by members of more than one family and whose rentals are within the limits mentioned in the exemption clauses. What those limits should be is left to the discretion of the Local Authority.

It is no doubt probable that even within the low limits of rental generally prescribed there may be houses for which the sanitary supervision contemplated by the bye-laws is not required, but it seems to be impossible to fix any other criterion than rental as a means of deciding what class of house the bye-laws should apply to. Each case would require to be considered on its merits whenever the question of registration arose, and only those houses would be placed upon the register which were occupied by persons whose habits rendered it desirable that constant sanitary supervision over the premises should be exercised.

The houses which have been reported upon may or may not be "houses let in lodgings," but even if they are not it is not anticipated that there will be any difficulty in dealing with any matters such as overcrowding, uncleanliness, or any other nuisance which may arise.

The houses in Compasses Passage, East Road, and 204 to 212, Newmarket Road were also visited. These consist of two apartments and are let out and occupied in much the same way as the houses already reported upon. But in each case there is only one tenant to a house, so that these houses, at any rate, cannot be regarded as houses let in lodgings.

The Britannia Inn, East Road, and 81, Fitzroy Street were also visited and found to be used as Common Lodging Houses. The keepers of these were advised to apply for registration.

Milk Supply.

It was originally intended that the whole question of the milk supply of Cambridge should be made the subject of a special report, and the materials had been collected for the purpose. Owing, however, to pressure of work in other directions its preparation has been so delayed that it has been decided to utilise the materials at hand and to deal with the subject here rather than in a special report.

Sources of the Milk Supply:—At the time the inspections for this report were made, there was 305 milch cows in the Borough, kept by 30 cowkeepers. Practically all the milk from those is sold in Cambridge, but some of the Cambridge cowkeepers also retail milk outside the Borough.

A comparatively small number of dairymen with cowsheds outside also retail milk within the Borough, while a large number of purveyors of milk who do not themselves keep any cattle sell milk which is produced both within the Borough and in other outside districts. Two large dealers obtain their supplies from Huntingdon, Norfolk, and Buckingham, while cream is brought by one of those firms from as far away as Wiltshire and Somersetshire.

In a large number of cases the sale of milk constitutes only a small part of the business carried on, and varies from half a gallon to three or four gallons a day. On the other hand there are three large firms whose sale amounts to several hundred gallons per day.

Average quantity consumed per head:—As nearly as can be ascertained this is less than half a pint (about 0·4) per head per day. A Committee of the Royal Statistical Society in 1904 estimated the average consumption in the United Kingdom at about 0·33 pints per head per day.

Among the poorest, milk is a luxury, and if bought at all, it is only in very small quantities and for use chiefly in tea. Even among the better paid working classes, milk, as an article of diet for children, does not take the place which could be wished for it.

Use of Condensed Milk:—It might have been expected that condensed milk would in many families take the place of fresh cows' milk, but from the information at hand this does not seem to be the case. Of 3,311 infants visited by the Health Visitors during 1906—1910 only 2·4 per cent. were being fed (either wholly or partly) upon condensed milk. Information obtained from other sources goes to show that its use is quite exceptional, at any rate, as a substitute for fresh milk.

The importance of a pure milk supply:—It would be impossible to overestimate the importance of a reasonably pure milk supply. To the child and invalid sections of the community it is absolutely essential, and the many recorded outbreaks of disease due to impure milk afford sufficient proof that the remainder of the community are also much in need of protection.

Sources of Contamination:—These fall naturally into two classes, (1) adulteration, resulting from the addition of preservatives, abstraction of fat, watering, &c., and (2) bacterial contamination.

(1) The addition of preservatives, the abstraction of fat, and the addition of water are offences which can be dealt with under the Sale of Food and Drugs Acts. The proportion of samples found to be adulterated during the past three years was 12·6 per cent. of the samples taken.

The use of preservatives in milk is apparently not general in Cambridge. The practice is one regarding which there is a good deal of misconception. In the first place there is no real need for their use in any case, provided scrupulous cleanliness is exercised. The report of the Departmental Committee on Preservatives and Colouring Matter in Foods (1901) states that preservatives in milk "may be relied on to protect those engaged" in the milk traffic "against the immediate results of neglect of scrupulous cleanliness. Under the influence of these preservatives milk may be exposed without sensible injury to conditions which otherwise would render it unsaleable. It may remain sweet to taste and smell and yet have incorporated disease germs of various kinds, whereof the activity may be suspended for a time by the action of the preservatives, but may be resumed before the milk is digested." For those reasons and also in consideration of the importance of pure milk for the use of infants and invalids, the Committee recommended the exclusion altogether of preservatives from milk, and concluded that their addition to milk is not necessary for the purposes of the milk trade even in hot weather or where the supply of so large a place as London is concerned.

In 1906, in accordance with a direction of the Council, milk dealers in Cambridge were notified that proceedings would be taken in any cases where the Public Analyst reported the presence of preservatives in milk. In the draft regulations of the Local Government Board relating to milk and cream recently framed, the use of preservatives in milk is absolutely prohibited, and their use in cream subjected to certain definite restrictions.

The preservation of the milk supply from adulteration by watering or by the abstraction of cream, or by the addition of preservatives has thus been satisfactorily provided for, and may be considered to be satisfactory.

(2) The position with regard to bacterial pollution is, however, on quite a different footing, and it is in this direction that further precautions are undoubtedly required. This form of pollution may occur either as a gross contamination with dirt, or may result from the introduction into milk of the specific organisms of disease, *e.g.*, Scarlet Fever, Diphtheria, Enteric Fever, Tuberculosis, &c. To obtain a milk supply which shall be reasonably free from risks of pollution of this character, it is essential that at every stage of its production, distribution, and storage, the strictest possible precautions should be taken.

The Cowsheds :—Twenty-nine cowsheds were inspected for the purposes of this report, and their condition in every respect carefully noted. Their structural condition is of importance in so far as it affects the health of the cows kept in them, and facilitates the keeping of the cows and premises in a clean condition.

That the condition of the cowsheds was far from satisfactory will be at once realised from the photographs of some of the premises found in use at the time the inspections were made. The results which have followed upon the measures taken to deal with such conditions are on the whole highly gratifying, and are an indication of what can be done by steady pressure. It is not intended to convey the impression that the cowsheds in Cambridge are ideal, but regard being had to the condition in which they were found and to the many difficulties, chiefly financial, in the way of cowkeepers, there is no doubt that a very considerable improvement in the housing of milch cows has been effected.

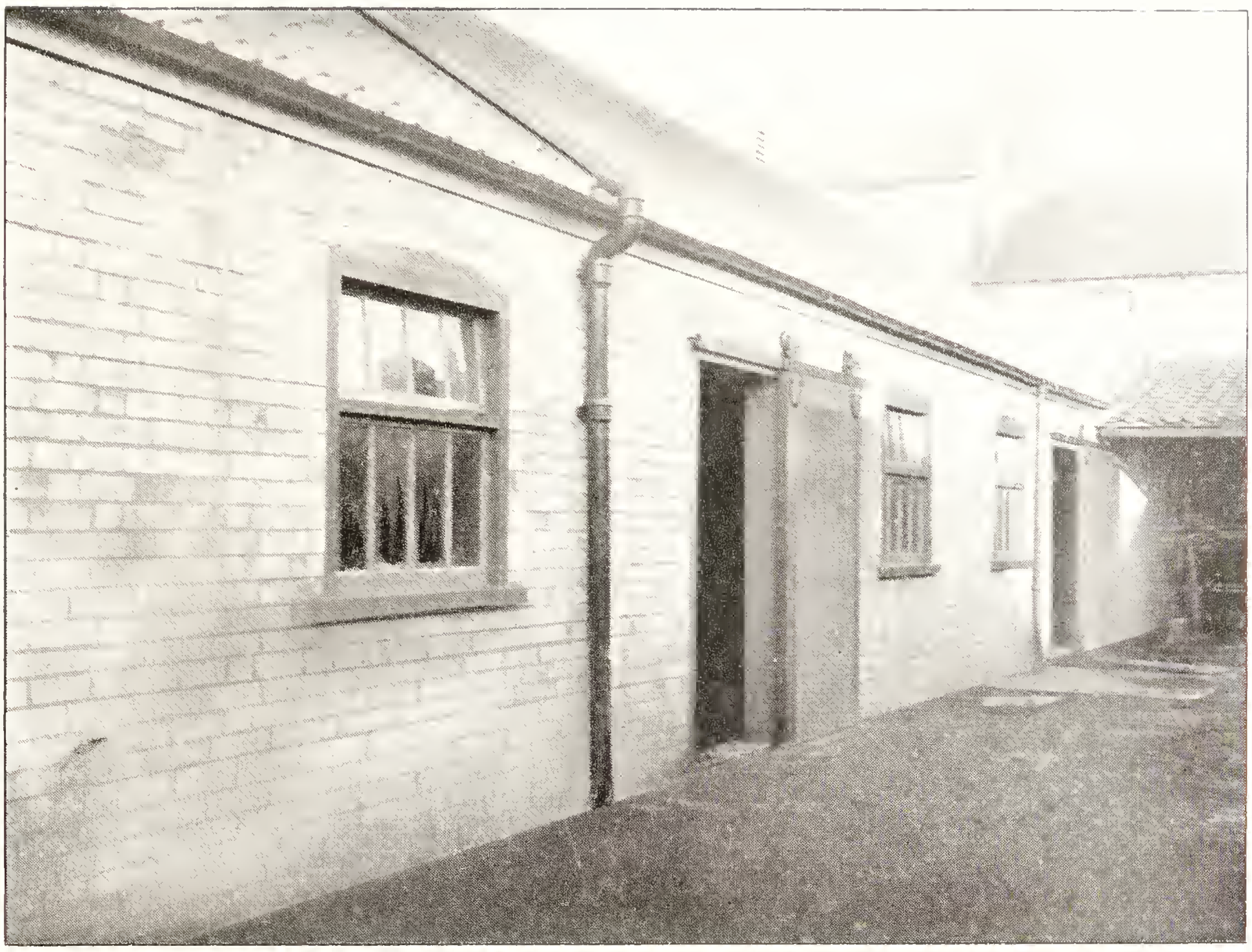
Five of the worst premises have been abandoned altogether, and six have been improved by the provision of impervious floors and walls, and improved lighting and ventilation. One new shed (certainly the best in the district) has been built. Several are in course of being altered, while in the remainder the structural arrangements were passed.

Milking Operations :—The milking is done entirely by men. The milk maid, at least in Cambridge, is conspicuous by her absence, and so far as one can judge is a very decided loss from the point of view of cleanliness.

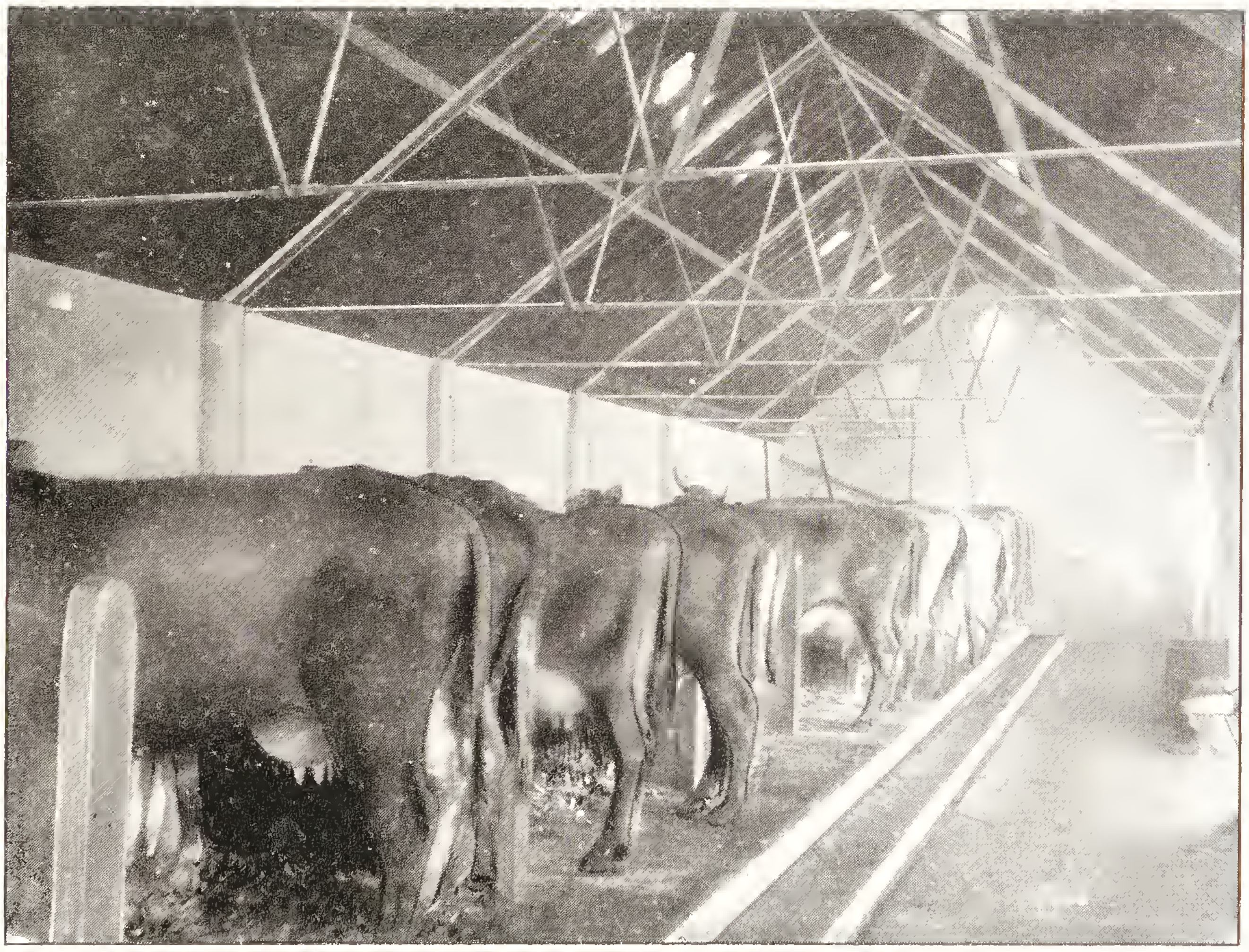
Generally there is no provision for washing the hands before milking, and the work is done in ordinary working clothes. What is known as wet miking, *i.e.*, moistening the hand with the cow's milk before commencing operations, seems to be the custom.

The hot water for scalding vessels is obtained from the household copper, and the use of a cooler to reduce the milk to a good "keeping" temperature is quite exceptional. Only six dairymen had coolers which seemed to be habitually used.

All these are points of the greatest practical importance, and it is in only two or three of the largest milk businesses that the necessary cleanliness is observed. There is abundant room for improvement here.



1. New Cowshed. Exterior.



1A. New Cowshed. Interior.
Ample air space, good lighting and ventilation, impervious floor and walls.

Care of Milch Cows:—About half of the cowkeepers make a rough attempt at grooming; two or three keep their cows in excellent condition. Clipping the tails and tying them up during the process of milking, washing the udders and teats are unknown. With regard to the use of milk from cows which have just calved, the practice seems to vary a good deal, and to be regulated for the majority by the demand for milk. If the demand is great, three days seems to be the usual time after calving before the milk is added to the supply, and if the demand is slack, 7 to 9 days is the time. The shortest period stated was two days.

Transport and Retailing:—The milk supply of Cambridge being produced for the greater part in the immediate neighbourhood, the risks of contamination and deterioration by keeping during long train journeys is happily avoided. There are, however, one or two directions in which some improvement could be made.

Sufficient attention in many instances is not paid to the condition of the milk cart, and in one instance it was necessary to bring a case of this sort before the magistrates with the result that a conviction was obtained.

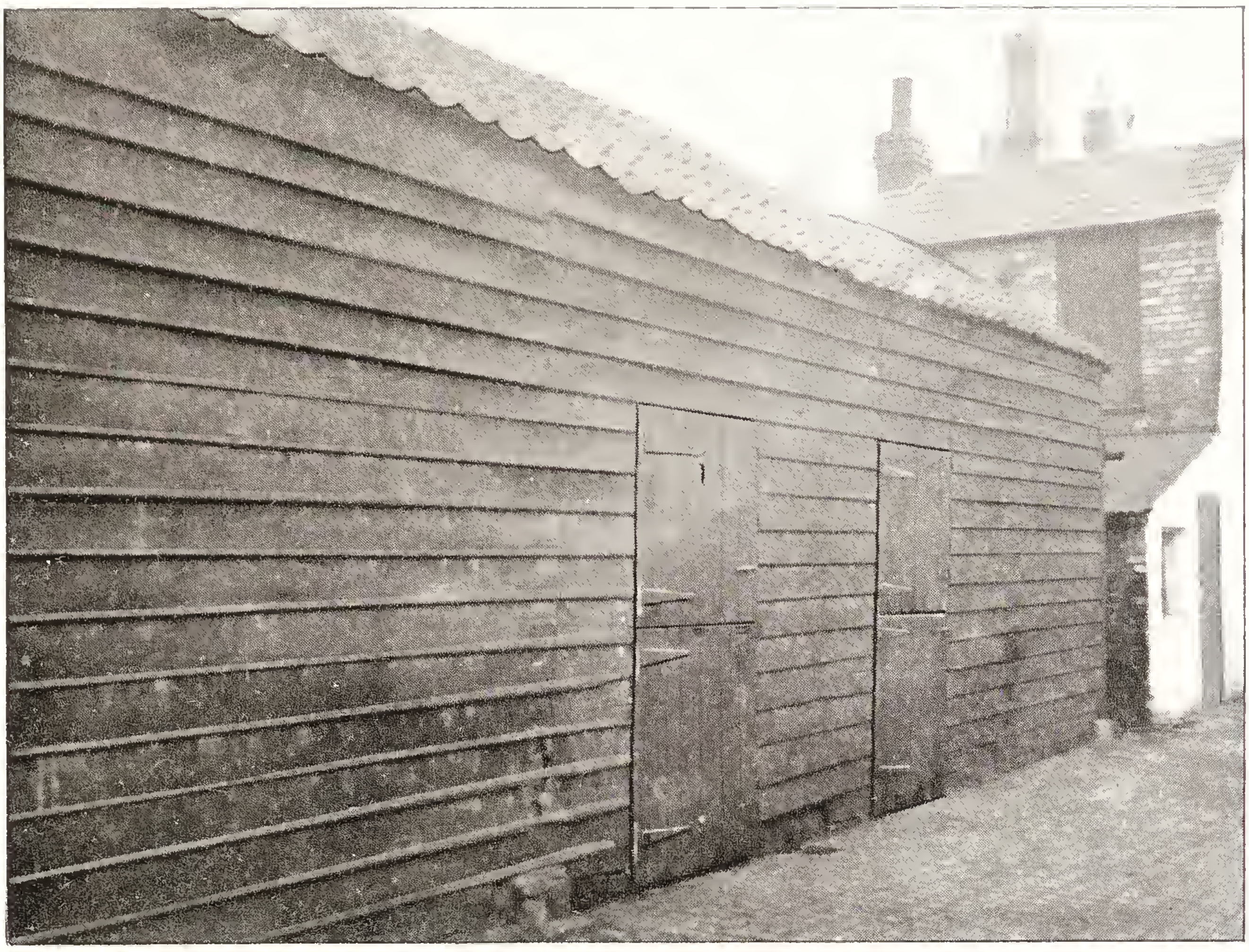
The practice of ladling out by dipping from a deep can is also a source of contamination. The hand or wrist of the milkman may enter the milk, rain or dust may enter when the lid is removed, and the dipper may transfer dirt from one vessel to another. There is also the risk of possible wilful contamination by watering, etc., when such cans are used. The best form of can is a sealed one with an overhanging cover and provided with a draw off tap. Better still would be the universal adoption of delivery in sealed bottles. This method has been adopted for a large part of their business by at least two large firms in the town.

The Milkshops :—There are 43 milkshops on the register. Very few of these are given up entirely to the sale of milk and other farm produce. In most instances the sale of milk forms only a small part of the business; most of the shops are provision or green grocery stores, and many communicate directly with the living room behind. On the whole they are kept fairly clean, but in a few the milk is open to contamination as a result of the want of cleanliness and the sale from the same counter of such strong smelling articles as vinegar, paraffin, pickles, &c.. potatoes and other vegetables. In the majority, the milk vessel is kept uncovered, but in a few the milk is sold from the covered can or churn kept behind the counter.

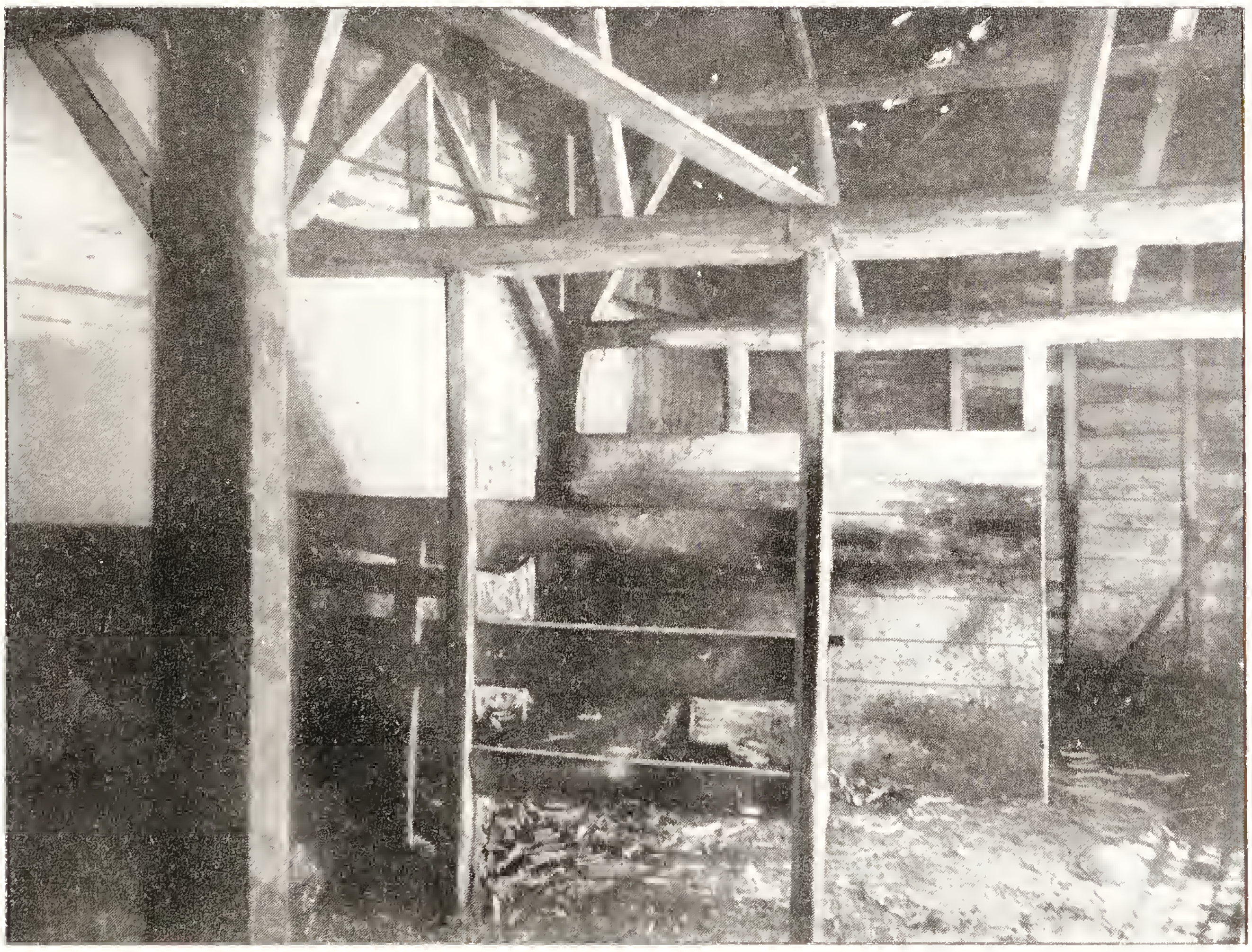
As a rule, however, the milk is kept only for a short time before being sold, so that the possibilities of contamination are not so great as they might otherwise be.

It is, however, highly desirable that all milk should be protected from flies and dust and that the premises should be kept scrupulously clean, and that no articles, *e.g.*, vinegar and strong smelling vegetables capable of affecting the taste and keeping qualities of the milk should be kept in the same shop.

The complete separation of the living rooms from the milkshop and the prohibition of the sale of milk by what are known as "general dealers" would also contribute greatly to the better regulation of the milk business and the purity of the supply.



2. Exterior. Old Cowshed replaced by one on preceding page. No means of lighting or ventilation.



2A. Interior of above. Rough wooden walls, dilapidated wooden partitions, broken and uneven brick floor.

Tuberculosis in Dairy Herds :—The relationship of tuberculous milk to tuberculosis in human beings is one of the points which has been investigated by the Royal Commission on Tuberculosis, and the conclusions of the Commission may appropriately be quoted here. (Pages 39 and 40 of the report.)

> "The evidence which we have accumulated goes to demonstrate that a considerable amount of the tuberculosis of childhood is to be ascribed to infection with bacilli of the bovine type transmitted to children in meals consisting largely of the milk of the cow.
>
> In the interests therefore of infants and children, the members of the population whom we have proved to be especially endangered, and for the reasonable safeguarding of the public health generally, we would urge that existing regulations and supervision of milk production and meat preparation be not relaxed; that, on the contrary, Government should cause to be enforced throughout the kingdom food regulations planned to afford better security against the infection of human beings through the medium of articles of diet derived from tuberculous animals.
>
> More particulary we would urge action in this sense in order to avert or minimise the present danger arising from the consumption of infected milk. And in this connection it may be convenient for us to repeat certain facts observed by us in reference to the conditions tending to the elimination by the cow of bovine tubercle bacilli in her milk; facts, in our opinion, of such importance that they formed the subject of our Third Interim Report.
>
> Bovine tubercle bacilli are apt to be abundantly present in milk as sold to the public when there is tuberculous disease of the udder of the cow from which it was obtained. The fact is, we believe, generally recognised though not adequately guarded against. But these bacilli may also be present in the milk of tuberculous cows presenting no evidence whatever of disease of the udder, even when examined post-mortem. Further, the milk of tuberculous cows not containing bacilli as it leaves the udder may, and frequently does, become infective by being contaminated

> with the faeces or uterine discharges of such diseased animals. We are convinced that measures for securing the prevention of ingestion of living bovine tubercle bacilli with milk would greatly reduce the number of cases of abdominal and cervical gland tuberculosis in children, and that such measures should include the exclusion from the food supply of the milk of the recognisably tuberculous cow, irrespective of the site of the disease, whether in the udder or in the internal organs."

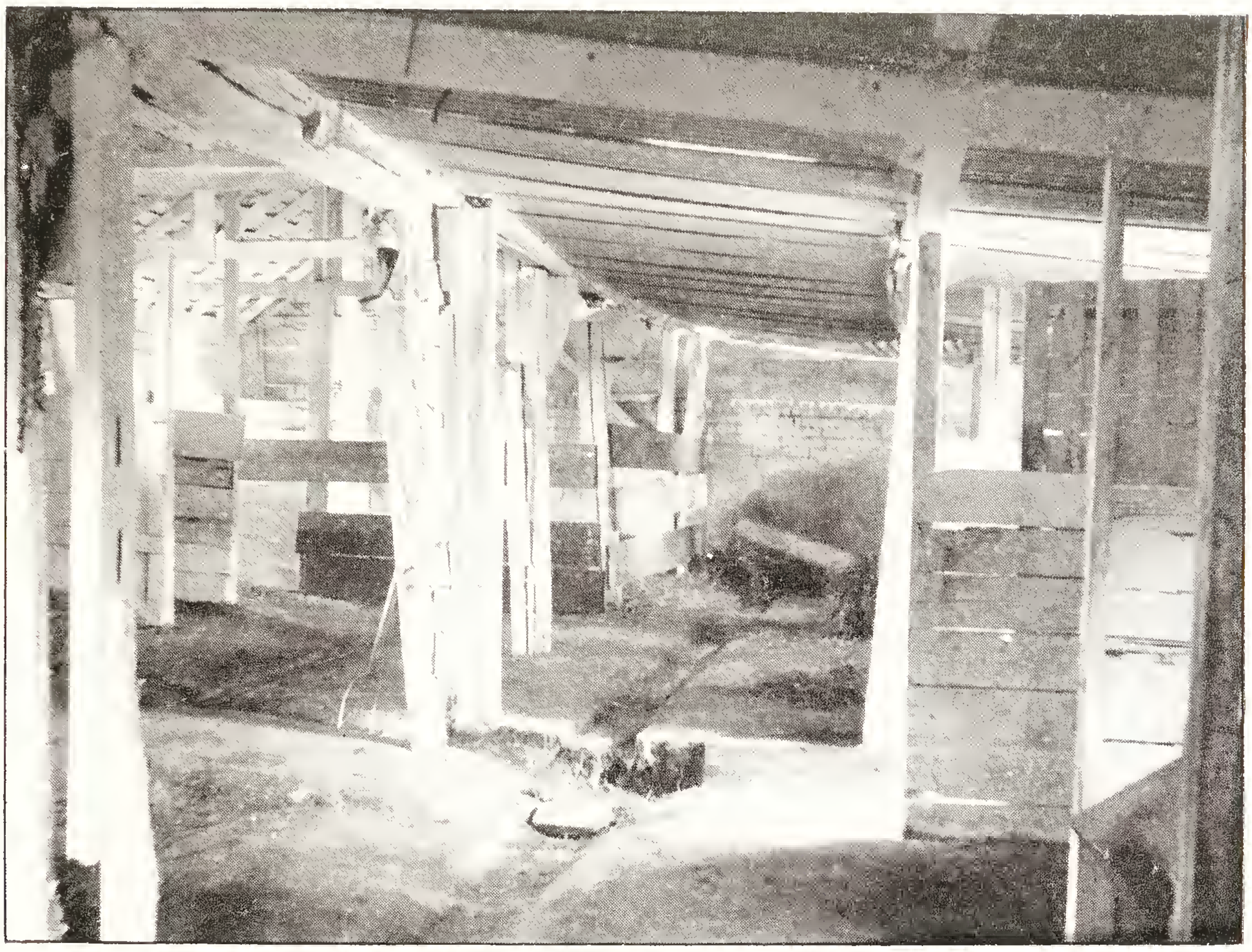
It is now fourteen years since Professor Kanthack and Dr. Sladen examined samples of Cambridge milk. They found tubercle bacilli in the milk from nine out of the sixteen dairies examined.

Since that time very few samples appear to have been examined until 1911, when 27 samples were submitted to Dr. Graham Smith. Of these, two were found to contain the tubercle bacillus.

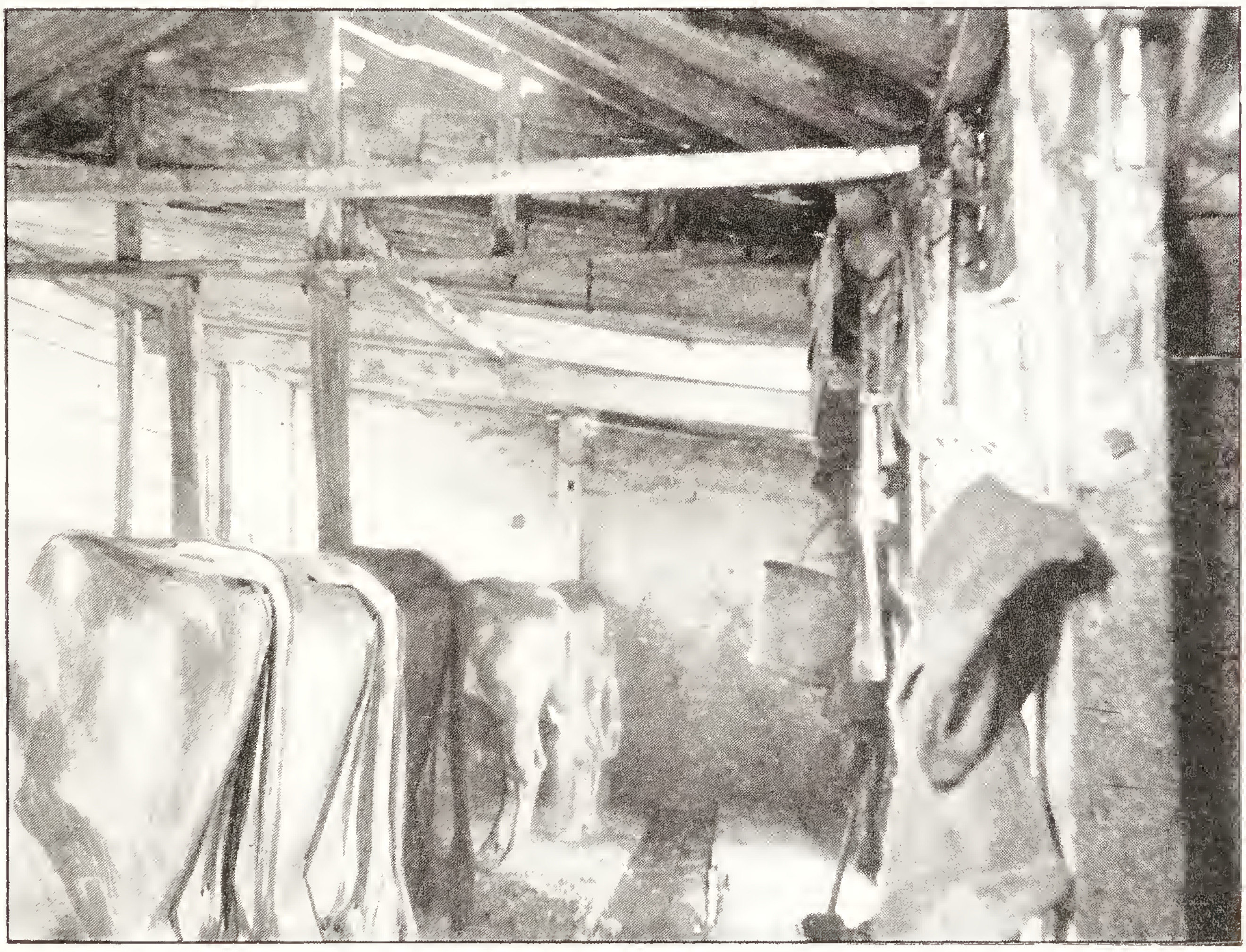
The condition of the milk supplies in a few of the largest cities in England is shown by the following table taken from "Public Health" for January, 1912, and Professor Delepine, of Manchester, says that speaking generally, "there are few herds of more than ten cows that do not include one or more tuberculous cows."

Tubercle Bacilli in Mixed Samples (Percentages).

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
1. Manchester	8·7	8·57	10·42	6·7	6·15	6·2	5·74	8·28	5·14	...
2. Liverpool, Country Samples	6·1	7·3	5·1	9·2	3·8	6·8	4·7	3·3	1·8	4·1
2. Liverpool, Town Samples...	0·6	0·4	0·8	1·5	0·4	1·4	1·5	2·0	0	1·4
3. Sheffield, Country Samples.	...	17·8	16·7	6·7	14·7	9·6	9·7	9·9	10·9	10·4
4. Birmingham, ,,			prior	to	1908	=14	per %	11·3	7·5	7·3
5. Leeds, Country Samples ...	...	...	...	...	...	...	...	25·3	16·4	...
6. Sunderland......	...	...	...	...	...	...	2·5	7·0	7·4	3·6
7. London (L.C.C.)	...	...	...	...	...	...	...	11·6	10·4	...



3. Interior of very dilapidated insanitary Cowshed. Note the large open drain inlet in centre.



4. Interior of old wooden Cowshed with defects similar to No. 3.

The need mentioned by the Royal Commission for further legislation on the subject has been recognized by the Government. For two or three years a Pure Milk Bill, containing comprehensive clauses dealing with the subject, has been heard of, but has always been dropped owing to the pressure of other more important public business. Some of the larger towns have obtained special powers for dealing with tuberculous milk supplies by incorporating what are known as the Model Milk Clauses in a Local Act. The whole procedure is, however, expensive, and it is greatly to be hoped that the long promised Bill will not be much longer delayed. The main objects of the Bill are to provide for—

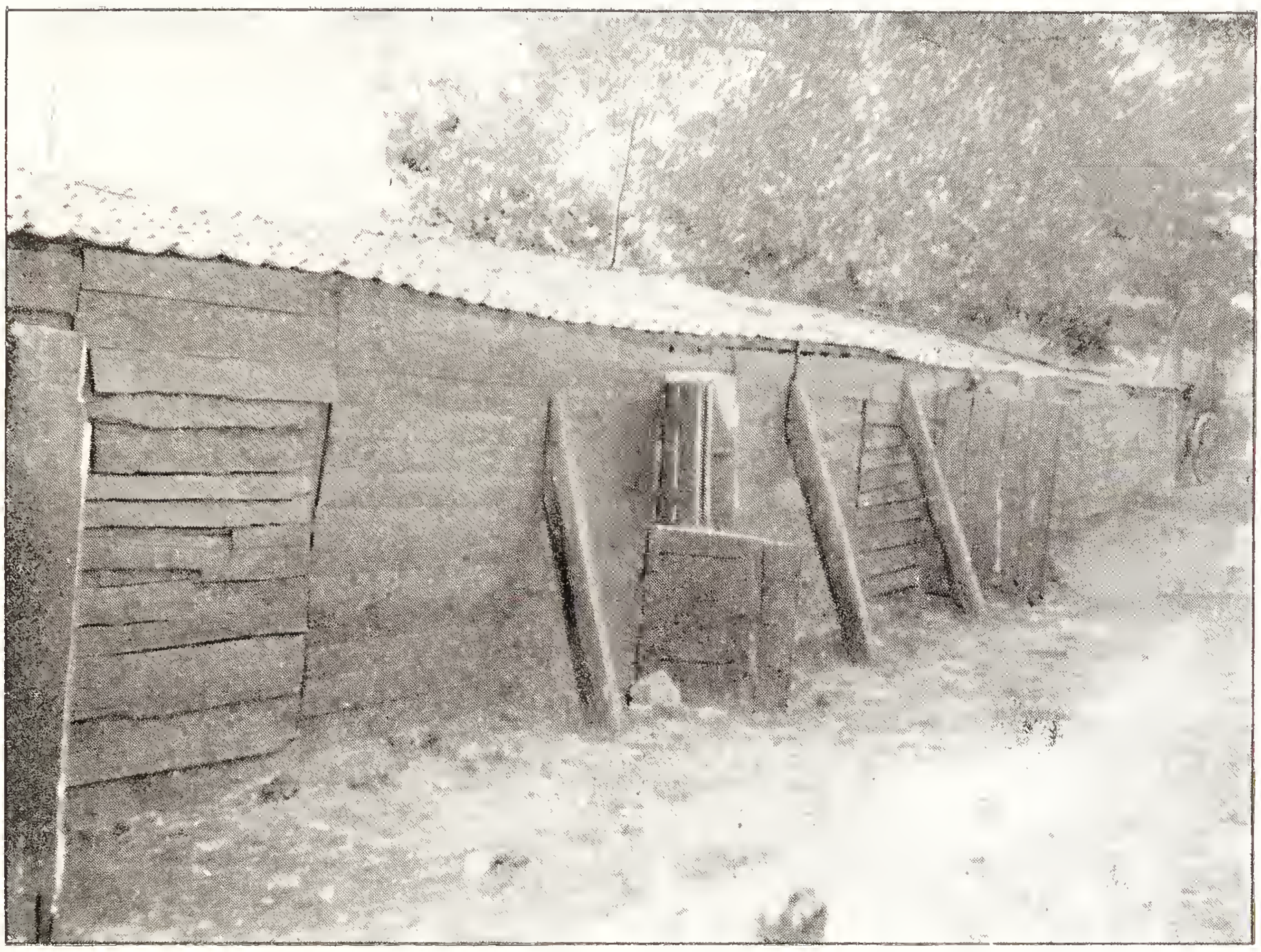
1. The more effective registration of dairies and dairymen;
2. The inspection of dairies and the examination of cows therein;
3. The prohibition of the supply of milk from a dairy where such a supply has caused or would be likely to cause infectious diseases, including tuberculosis;
4. The prevention of the sale of tuberculous milk;
5. The regulation of the importation of milk so as to prevent danger to public health arising therefrom;
6. The issue of regulations for securing the supply of pure and wholesome milk;
7. The establishment by local authorities in populous places of milk depôts for the sale of milk specially prepared for infants.

In the meantime an effort should be made to reach all engaged in the trade by such means as the Local Authority possess with the object of advising them as to the best practicable means of achieving the desired result, while at the same time the attention of the general public should be engaged on the subject. The leaflets upon the subject prepared by a joint committee of the National League for Physical Education and Improvement are excellent examples of one means which may be taken. These are specially designed to promote a pure supply of milk and are issued as a series, one for milk producers, a second for milk distributers and retailers, and a third for milk consumers. Cards, an example of which will be found at the end of this report and which are intended to be fixed upon the wall of the cowshed as a constant reminder, have also been found useful.

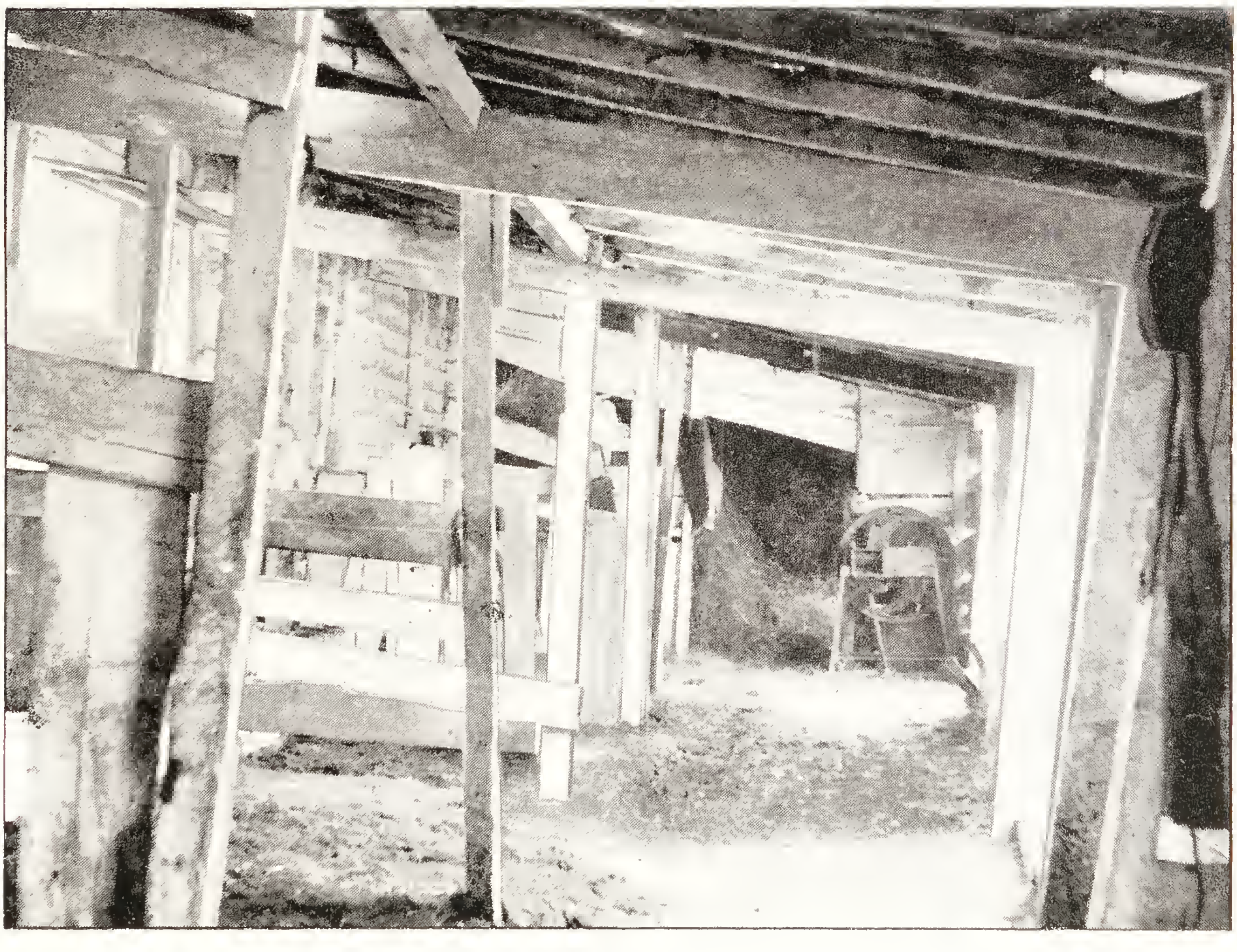
Another measure, viz.,—the granting of an annual certificate to dairymen whose premises and methods comply with certain requirements has also been put into operation in at least one town in in England. The object is to stimulate dairymen by holding out the certificate of the Authority as an inducement to conform to their requirements, while its possession should prove some guarantee to the consumer.

If nothing further is said here regarding the sanitary condition of dairy premises, it is because it is assumed that the supervision which has already produced fairly satisfactory results will be continued, and that every effort will be made to maintain a satisfactory condition of affairs in connection with them. As a means of testing the effect of those efforts, constant bacteriological examinations of the milk should be made, both for the total bacterial content and for tubercle bacilli.

To deal with cattle found to be producing tuberculous milk, more extensive legal powers, such as the Milk Bill proposes to give, are necessary. In the



5. Exterior of dilapidated wooden Cowshed—walls propped up by beams—no lighting or ventilation.



6. Interior of same Cowshed—rough broken brick floor—no drain.

meantime, it is desirable that arrangements should be made for the routine inspection of dairy cows in the borough, in order to ensure as far as possible that only milk from healthy cattle is added to the general supply.

[Specimen of Card to be hung in Cowshed.]

PRECAUTIONS to be observed upon MILK FARMS.

As the purity of Milk supplied for human food is of the utmost importance, the following rules should be carefully observed :—

Care must be taken that all Utensils used for the storage of Milk are thoroughly clean.

The hands of the milker should be washed and dried before Milking.

The Udders of the Cows should be cleaned and wiped with a clean cloth before commencing to Milk.

An Overall should be worn by the Milker to cover his clothes, and used for no other purpose, and kept thoroughly clean.

The Cowshed should should be kept as free from Dust, Cobwebs, &c., as possible.

The Channels of the shed should be swilled with clean water before each Milking period.

The Bodies of the Cows should be Brushed daily, the skin kept Clean and free from Scurf or Dust, and Cleanliness can be facilitated by clipping off the long hairs from the tails of the Cows.

Milk should be kept covered, as much as possible, to prevent contamination by the dust floating in the atmosphere, by flies, &c.

Strict attention should be paid to any eruption or disease affecting the Udder or Teats, and reported at once to the Veterinary Inspector.

Canal Boats.

The following Report under The Canal Boats Acts, 1877-84, has been presented by the Inspector:—

"(1). William Tyas Taylor, 3, Prospect Row, Cambridge, one of the Inspectors of Nuisances for the Borough, is Inspector of Canal Boats.

"(2). The number of boats inspected during 1911 was 8 (10 inspections). Two of the boats required painting, marking, and other repairs.

"(3). No infringements of the Acts and Regulations, other than those mentioned in paragraph 2, have occurred during the year.

"(4). No legal proceedings have been taken.

"(5). Verbal notice was given to the Owner of boats mentioned as to painting, marking, and necessary repairs. These notices have been complied with.

"(6). No case of infection has been notified or traced.

"(7). No boats have been detained for cleansing or disinfection.

"(8). The number of boats on the register is:—

(a) Number of boats in use or available, 8.

(b) Number of boats that cannot be traced, Nil.

The Owners of two boats have notified change of Masters.

(Signed) WILLIAM TYAS TAYLOR,
Inspector of Canal Boats."

Sale of Food and Drugs Acts.

The number and character of the samples taken during the year, and the results of analysis, are shown in the following table :—

Samples.	Number.	Genuine.	Adulterated.	Prosecutions.	Convictions.
Milk (formal)......	36	27	9	8	7
,, (informal) ...	42	37	5	...	...
Cream (informal).	6	6	...	...	...
Butter (formal) ...	9	9	...	...	...
,, (informal)..	2	2	...	...	...
Bread	6	6	...	...	...
Flour	6	6	...	...	...
Margarine	3	3	...	...	...
Cheese	4	4	...	...	...
	114	100	14	8	7

The extent and nature of the adulteration of the milk samples is shown in the following list :—

Deficient in fat to the extent of	6%	
,, ,, ,,	17%	Convicted with costs, 18/6.
,, ,, ,,	12%	,, ,, 19/6.
,, ,, ,,	14%	,, ,, 17/6.
,, ,, ,,	18%	Fined 10/- and 18/6 costs.
,, ,, ,,	22%	Informal Sample. Warned.
,, ,, ,,	10%	,, ,,
,, ,, ,,	9%	,, ,,
,, ,, ,,	3%	,, ,,
Added Water	35%	,, ,,
,, ...	26%	Fined £1 and £1 10s. costs.
Cow Dung present		Fined 5/- including costs.
Added Water...	8%	Case dismissed.

Table showing particulars of samples taken since 1909:—

Year.	No. taken.	Genuine.	Adulterated.	% Adulterated.	Prosecutions.	Convictions.
1909...	58	49	9	15·5	3	1
1910...	106	94	12	11·3	5	2
1911...	114	100	14	12·3	8	7

Disinfection.

The following summary shows the amount of work done during the year:—

Disease.	No. of Articles.	No. of Rooms.
Scarlet Fever	5,325	328
Diphtheria	929	100
Enteric Fever	24	—
Erysipelas	16	6
Pulmonary Tuberculosis...	247	26
Septic Cases	537	—
Cancer	45	6
Measles	2	70
Whooping Cough.. ..	1	1
Pneumonia...	6	—
Puerperal Fever	20	7
Others	465	50
Totals	7,617	594

The articles disinfected included 106 beds, 386 mattresses, 18 palliasses, 118 bolsters, 929 pillows, 93 cushions, 567 blankets, 78 sheets, 146 quilts, 4,857 articles of clothing, and 319 other articles.

The total number of stovings was 110.

Besides the above the Scarlet Fever, Enteric Fever, Diphtheria and Private Wards at the Isolation Hospital have been disinfected, as well as ten Elementary Schools, and also one of the University Boathouses, and one carriage.

Notification of Births.

The Notification of Births Act, 1907, came into force in Cambridge on the 1st July, 1909. The figures relating thereto are as follows :—

	1910.	1911.
Total births	799	764
Births notified	638	638
Percentage notified ...	79·8	83·5
Notified by Doctors ...	135	160
Notified by Midwives ...	472	429
Notified by Parents ...	31	49

In every case where no notification was received, a circular letter was sent to the Father directing attention to the requirements of the Act.

Health Visitors.

The visitation required after notification of a birth is undertaken by the three Health Visitors of the Cambridge Branch of the League of Physical Education and Improvement.

The number of infants visited during 1911 was 856 as compared with 732 in 1910.

The proportion entirely breast-fed is 79 per cent. During 1910 80 per cent. of the babies were entirely breast-fed. As is well known the prospects of an infant surviving the first year of its life are very greatly influenced by the method of feeding. This is very clearly shown by the figures in the table given below:—

	1911.			1906—1911.		
	Number reported on.	Number of Deaths.	Percentage of Deaths.	Number reported on.	Number of Deaths.	Percentage of Deaths.
Breast-fed entirely ...	435	16	3·6	2794	63	2·2
Breast-fed partly ...	49	6	12·2	570	40	7·0
Not breast-fed at all ...	65	11	16·9	496	56	11·2
Fed wholly or partly on cows' milk ...	55	9	16·3	726	57	7·8
Fed wholly or partly on condensed milk ...	13	4	30·7	94	10	10·6
Other foods added ...	48	4	8·3	563	29	5·1

Of the 55 children fed wholly or partly on cows' milk, 53 had the milk boiled or sterilised.

Among the bottle-fed babies, 59 were found at the first visit to have bottles with teats only, and 8 had bottles with long tubes and teats.

The number of visits paid by the Health Visitors to the Infants during the year was 4,159. In 82 cases, between eight and eighteen visits were paid to a child.

Matters of domestic sanitation are dealt with, and where any conditions beyond remedy by tenants themselves are found they are reported to the Medical Officer of Health.

The Infant Milk Depot.

The depôt was opened in June, 1910, and was organised by a Committee working in connection with the League of Physical Education and Improvement.

The number of infants who attended during 1911 was 67.

The number of attendances at the depôt was :—

Age.	Children.
10 months or over	3
8 to 10 months	3
6 to 8 months	2
4 to 6 months	10
3 to 4 months	8
2 to 3 months	10
1 to 2 months	7
Less than 1 month	12

In addition, there were 12 children who were still in attendance at the end of 1911.

The progress made was as follows :—

25 gained at the rate of over 1lb. a month.
6 ,, ,, ,, 1lb. ,,
11 ,, ,, ,, ¾lb. ,,
11 ,, ,, ,, ½lb. ,,
4 ,, ,, less than ½lb. ,,
5 showed no gain.
5 no weights were recorded.
Two of the infants died from Enteritis.

Factories and Workshops.

1.—INSPECTION.

INCLUDING INSPECTIONS MADE BY THE INSPECTOR OF NUISANCES.

Premises.	Inspections.	Written Notices.
Factories (including Factory Laundries) ...	27	—
Workshops (including Workshop Laundries and Bakehouses)—	297	—
Workplaces...	33	—
Total ...	357	—

2.—DEFECTS FOUND.

		No. of Defects.	
		Found.	Remedied.
Nuisances under the Public Health Act :			
Want of Cleanliness		49	49
Want of Ventilation		1	1
Overcrowding		6	6
Want of Drainage of Floors		—	—
Other Nuisances		9	9
Sanitary Accommodation	insufficient ...	1	1
	unsuitable or defective ...	15	15
	not separate for sexes ...	—	—
Offences under the Factory & Workshops Act :			
Illegal occupation of underground bakehouse (S. 101)		—	—
Breach of special sanitary requirements for Bakehouses (SS. 97 to 100)		—	—
Total ...		81	81

3.—HOME WORK.

List of Out-Workers (Section 107):

List received from employers

Wearing Apparel—

	Twice in the Year.		Once in the Year.	
	Lists.	Out-workers.	Lists.	Out-workers.
(1) Making, &c. ...	112	1056	2	3
(2) Cleaning and Washing	—	—	—	—
	112	1056	2	3
Adresses of Out-workers ... Received from other Councils... ...		1		1
Adresses of Out-workers ... Forwarded to other Councils... ...		384		—
Prosecutions (failure to send in lists)		—		—
No. of Inspections of Outworkers' Premises		24		—
Outwork in unwholesome Premises (Secs. 158)		—		—
Outwork in infected Premises (Secs. 109, 110)		—		—

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year 492.

5.—OTHER MATTERS.

Matters Notified to H.M. Inspector of Factories:

Class.		Number.
Failure to affix Abstract of the Factory and Workshops (S. 133)		1
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Acts (S. 5)	Notified by H.M. Inspector ...	7
	Reports of action taken sent to H.M. Inspectors	4
Other...		—

Underground Bakehouses (S. 101):

Certificates granted during the year	—
In use at the end of the year	5

The following is a list of Workshops on the Register at the end of the year :—

Art Needlework	3
Bakers	57
Basket Makers	1
Blacksmiths	9
Boot and Shoe Makers	36
Brewing Beer and Bottling	1
Builders	27
Cabinet Makers	9
Carriage Builders	4
Cigarette Manufacturers	1
Carriage Painters	1
Coach Builders	2
Carpenters	4
Confectioners	7
Corn Merchants	1
Cooper Smiths	1
Corset Makers	1
Cycle Repairers, &c.	24
Costumiers	2
Cleaning and Repairing Clothes	1
Cutler	1
Decorator	1
Dressmakers	57
Dyer	1
Electrical Engineer	1
Embroiderer	1
Engraver	1
Fancy Work	1
Foundry	1
Furniture Dealer	1
Furniture Manufacturer	1
Furriers	2
Fruit and Floral Depôts	2
French Polishing	1
Fitter	1
Harness Makers	4
Hat Maker	1
Heraldic Painter	1
Horticultural Builders	2
Iron Foundry	1
Jewellery, &c.	1
Joiners	3
Knitting	2
Ladies Tailor	1
Laundresses	32
Marine Store Dealers	2
Masons	6
Muffin Maker	1
Milliners	34
Mineral Water Works	7
Motor Repairs	4
Organ Builders	1
Photographers	7
Picture Frame Makers	1
Plumbers	4
Plasterers	1
Pasteurizing Milk	1
Paint Mixing	1
Robe Makers	2
Rope Maker	1
Sack Maker	1
Sadlers	4
Scientific Instrument Maker	1
Shoeing Smith	4
Smiths	13
Sugar Boilers	4
Surgical Instrument Maker	1
Sculptor	1
Stained Glass Works	2
Stone Masons	2
Shirt Makers	2
Tailors	49
Tailoresses	2
Ticket Writers	2
Tinworkers	3
Tripe Dressers	1
Upholsterers	6
Umbrella Maker	1
Wheelwrights	3
Wood Turners	2
Weighing Machine Repairs	1
Church Army Home	1

Record of Sanitary Inspectors' Work done during 1911.

	Total.
INSPECTIONS :	
Number of premises visited on complaint ...	222
Number of premises visited in connection with infectious disease	96
Total number of inspections and re-inspections...	3,543
NOTICES :	
Preliminary Intimations	311
Statutory Notices	42
Summonses	1
Convictions	1
HOUSES (Housing Act, 1909) :	
Houses inspected—house to house	151
Number of houses represented	42
Number of Closing Orders made...	28
Number of houses made habitable after Closing Order	14
Number of houses demolished	6
COMMON LODGING HOUSES :	
Number registered	10
Number of inspections	155
Number of Contraventions of Bye-laws	9
WORKSHOPS :	
Number on register...	504
Number of inspections	186
Number of defects found	47
BAKEHOUSES :	
Number on register...	57
Number of inspections	171
Number of defects found	34
SLAUGHTERHOUSES :	
Number registered	14
Number licensed (three Annual Licences) ...	10
Number of inspections	235
Number of defects found	5

COWSHEDS :	Total.
Number Registered—at beginning of 1911, 29; at end of 1911	24
Number of inspections	109
Number of defects found	17

DAIRIES AND MILKSHOPS :

Number Registered...	43
Number of Inspections	159
Number of defects found	8

FOOD AND DRUGS ACTS :

Samples taken	114
Number adulterated	14
Prosecutions...	8
Convictions	7

UNSOUND FOOD :

Animals seized ... 1. Weight, 700 lbs.
Animals surrendered.. 5. Weight, 3582 lbs.
Other foods—Pork, 140 lbs.
Fish, 1344 lbs,
Cheese, 14 ,,
Chickens, 30.
Apples, 4½ bushels.

Prosecutions...	2
Convictions	2
Samples of Milk examined for Tubercle bacilli...	27
,, ,, ,, Dirt	1
,, ,, found with Tubercle bacilli ...	2
,, ,, ,, Dirt	1

DRAINAGE :

Number of tests (smoke) applied	160
Number of drains opened up	18
Waste pipes, rain water pipes disconnected, vent shafts repaired	127
Number of house drains reconstructed	166
Number of closets provided with flushing cisterns	186
Number of new w.c.'s	15

WATER SUPPLY :	Total.
Houses newly provided with separate supply ...	20

SUNDRY NUISANCES :	
Overcrowding	10
Smoke	6
Accumulations of refuse (stable, &c.)	30
Animals improperly kept	4
Dirty and unpaved yards	101
Others	196

Hospital Accommodation.

The Hospital is situated in Mill Road, close to the Borough Boundary, on a piece of land having an area of nearly three acres.

It has been added to from time to time, and now provides accommodation for Scarlet Fever, Enteric Fever, Diphtheria, observation cases, and private patients (in separate blocks), together with the necessary Administrative Block, a Laundry, Mortuary, Discharge Room, and Ambulance Shed.

Allowing 2,000 cubic feet of space per head, the number of patients who can be isolated in each of the blocks is Scarlet Fever, 12; Enteric Fever, 6; and Diphtheria, 8.

This, together with 7 single bedrooms in the Private Block and 3 in the Observation Block, makes provision for a total of 36 patients.

Accommodation is also maintained for Small-pox cases on an isolated position at the extreme eastern boundary of the Borough.

The following statement shows the number of cases dealt with during the year 1911:—

	In Hospital Dec. 31st, 1910.	Admitted.	Dis-charged.	Died.	In Hospital Dec. 31st, 1911.
Scarlet Fever	34	305	271	4	64
Diphtheria	9	109	89	15	14
Enteric Fever	1	—	1	—	—
Phthisis Pulmonalis ..	—	16	14	2	—
Totals	44	430	375	21	78

The hospital expenditure for a number of years back is given in the following table:—

	Salaries and Wages.	Food.	Drugs and Disinfectants	Other Items.	Total.
	£	£	£	£	£
1897—8	335	517	85	337	1274
1898—9	295	548	63	433	1339
1899—00	336	554	47	331	1268
1900—1	303	531	33	402	1269
1901—2	348	547	41	543	1479
1902—3	528	732	45	885	2060
1903—4	518	828	55	983	2384
1904—5	478	511	34	705	1728
1905—6	499	664	31	761	1955
1906—7	616	633	50	827	2126
1907—8	532	537	40	742	1851
1908—9	626	639	64	606	1935
1909—10	610	659	74	698	2041
1910—11	650	681	93	648	2072

The following table gives details as to the average cost of maintenance per patient, etc., for the past thirteen years:—

Year.	Total treated.	Average daily number.	Average resid'nce in days.	Daily cost per head for Food.		Daily cost per head for Food and Drugs.		Cost per patient per day.		Average cost per patient.		
				s.	d.	s.	d.	s.	d.	£	s.	d.
1898–9	121	14·0	42·3	1	1¾	1	4½	5	2½	11	1	3¾
1899–00	125	13·0	38·0	1	2½	1	5	5	4	10	2	10½
1900–1	127	16·5	47·4	1	0¼	1	1½	4	2½	9	19	10
1901–2	98	10·7	39·8	1	2	1	4½	7	6¾	15	1	10
1902–3	245	28·1	41·9		10½		11½	4	0	8	8	1¾
1903–4	269	31·1	42·4		11	1	0	4	2	8	17	2¾
1904–5	127	11·0	31·7		11½	1	1½	8	0¾	13	12	1½
1905–6	148	15·0	37·0	1	1¼	1	2½	7	1½	13	4	2½
1906–7	179	19·1	38·9		11¼	1	1	6	1	11	17	6½
1907–8	152	12·3	29·7		11½	1	1¾	8	2½	12	3	6½
1908–9	185	15·1	29·8	1	0¾	1	3½	7	0	10	9	2¼
1909–10	223	21·9	35·8		10¾	1	1	5	1½	9	1	9¾
1910–11	240	23·3	35·4		10½	1	1¼	4	10½	8	12	8½

Adoptive Acts.

The following Acts have been adopted in Cambridge :—

Infectious Diseases (Prevention) Act, 1890. Adopted 31st January, 1891.

Public Health Acts Amendment Act, 1890 (Part III.). Adopted 1st January, 1893.

Notification of Births Act, 1907. Adopted 1st July, 1909.

The Public Health Acts (Amendment) Act, 1907 (Parts II., III., IV., V., VI.). Adopted 24th December, 1910.

Bye-Laws.

Bye-laws and Regulations relating to the following are in force. The date of passing is given in brackets.

Buildings and New Streets (1901).
Drainage of Buildings (1901).
Common Lodging Houses (1904).
Slaughterhouses (1889).
Nuisances (1889).
Dairies, Cowsheds, and Milkshops (1900).
Cleansing of Footways (1904).
Rain Water Pipes (1856).

An additional bye-law relating to New Buildings was approved in March, 1911. It is to the following effect :—

> "Any building intended to be erected by the Council for use solely as a hospital or sanatorium for the reception and treatment of persons suffering from Pulmonary Tuberculosis shall be exempt from the operation of the bye-laws with respect to the drainage of buildings" . . . . "and from the operation of the byelaws with respect to new streets and buildings."

The forming of bye-laws relating to moveable ashbins and for the prevention of spitting in public places was considered. It was decided, however, not to proceed with them as the existing powers were considered sufficient.

TABLE I.

Borough of Cambridge.

Vital Statistics of Whole District during 1911 and previous Years.

Year.	Population estimated to Middle of each year.	Births.			Total Deaths registered in the District.		Transferable Deaths.‡		Nett Deaths belonging to the District.			
		Uncorrected Number.	Nett.						under One Year of Age.		at all Ages.	
			Number.	Rate.	* Number.	Rate.	of Non-residents registered in the District.†	of Residents not registered in the District.†	* Number.	Rate per 1,000 nett Births.	* Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1906 ...	39183	791	791	20·1	599	15·2	82	8	101	127	525	13·4
1907 ...	39367	816	816	20·7	585	14·8	86	11	72	88	510	12·9
1908 ...	39542	791	791	20·0	654	16·5	72	12	107	135	594	15·0
1909 ...	39718	854	854	21·5	597	15·0	73	19	71	83	543	13·6
1910 ...	39894	799	799	20·0	570	20·0	69	6	61	76	507	12·7
1911 ...	40069	763	764	19·0	623	15·5	97	25	96	125	†551	13·7

Notes.—This Table is arranged to show the gross births and deaths in the district, and the births and deaths properly belonging to it with the corresponding rates.

* In Column 6 are included the whole of the deaths registered during the year as having actually occurred within the district.

In Column 12 are entered the number in Column 6, corrected by subtraction of the number in Column 8 and by addition of the number in Column 9. Deaths in Column 10 are similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.

‡ "Transferable Deaths" are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided.

† By order of the Registrar-General, this number includes the deaths of three undergraduates who did not belong to the district.

Area of District in Acres (exclusive of area covered by water)...... ..3,210.
Total population at all ages .. ..40,027 } At Census of 1911.
Number of inhabited houses ....
Average number of persons per house ....

TABLE II.

Cambridge District and its Divisions.

Cases of Infectious Disease notified during the Year 1911.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								TOTAL CASES NOTIFIED IN EACH LOCALITY.		NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.		Total cases removed to Hospital.
	At all Ages.	At Ages—Years.							1	2	1	2	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.	St. Andrew the Less.	St. Andrew the Great.	St. Andrew the Less.	St. Andrew the Great.	
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup)... ...	112	...	19	80	10	3	...	...	99	13	92	13	105
Erysipelas	26	...	2	2	4	6	11	1	20	6	...	...	...
Scarlet Fever	331	2	63	235	20	11	...	...	263	68	240	59	299
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	3	...	...	1	1	1	...	...	1	2	...	...	..
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	..	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	5	...	...	...	3	2	...	...	5	...	...	...	..
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis: Under Tuberculosis Regulations, 1908	9	...	...	...	5	2	1	1	6	3	...	...	...
Phthisis: Under Tuberculosis Regulations, 1911	*19	...	...	...	6	8	5	...	18	1	13	3	16
Phthisis: Others	17	...	...	1	3	9	3	1	14	3	...	...	...
Totals...	522	2	84	319	52	42	20	3	426	96	345	75	† 420

* In addition to this number, twenty-six cases of Phthisis were notified from Addenbrooke's Hospital among patients who attended that Institution but lived in various parts of the County.

† In addition to the Town cases there have been five cases of Scarlet Fever and four cases of Diphtheria belonging to the Chesterton Urban District, and one case of Scarlet Fever belonging to the Royston Urban District, treated at the Infectious Diseases Hospital.

Besides those cases removed into the Borough Infectious Diseases Hospital two cases of Scarlet Fever, one case of Typhoid Fever, three cases of Puerperal Fever, and six cases of Erysipelas belonging to the Borough, and six cases of Typhoid Fever and three cases of Erysipelas belonging to different parts of the County, were medically treated in Addenbrooke's Hospital.

Isolation Hospital (name and situation)—Borough Infectious Diseases Hospital, Mill Road, Cambridge.
Total available beds—36. Number of Diseases that can be concurrently treated—3.

TABLE III.

Borough of Cambridge.

Causes of and ages at Death during the Year 1911.

See Notes on next page.

Causes of Death.	Nett Deaths at the subjoined Ages of "Residents" whether occurring within or without the District (*a*).									Total Deaths whether of "Residents" or "non-Residents in Institutions in the District (b).
	All ages.	Under 1.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	
1	2	3	4	5	6	7	8	9	10	11
All causes { Certified (*c*) ...	550	95	31	28	31	25	55	126	159	197
All causes { Uncertified ...	1	1	...	...	...	...	...	...	..	...
Enteric Fever	...	...	...	...	...	...	...	...	...	1
Small-pox	...	...	...	...	...	...	...	...	...	...
Measles	31	8	12	8	3	...	...	...	...	1
Scarlet Fever	1	...	...	1	...	...	...	...	...	3
Whooping Cough	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup (*d*)...	19	...	1	5	13	...	...	...	...	17
Influenza	1	...	...	...	...	...	..	...	1	...
Erysipelas	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Fever ...	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis)	30	...	...	...	...	9	10	9	2	9
Tuberculous Meningitis (*e*)..	5	...	1	2	2	...	...	...	...	4
Other tuberculous diseases...	8	...	1	...	1	2	2	2	...	4
Rheumatic Fever	1	...	...	...	1	...	...	...	...	...
Cancer, malignant disease (*f*)	38	...	...	...	...	...	4	21	13	17
Bronchitis	23	4	1	...	..	1	...	5	12	2
Broncho-Pneumonia ...	16	7	2	1	1	...	1	...	4	1
Pneumonia (all other forms)	19	..	4	1	...	..	6	4	4	5
Other diseases of Respiratory organs	14	...	..	3	...	1	1	3	3	2
Diarrhœa and Enteritis (*g*)..	35	27	4	1	...	...	...	2	1	1
Appendicitis and Typhlitis.	2	...	...	...	1	...	...	1	...	2
Alcoholism (*h*)	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver	4	...	...	1	...	...	...	2	1	1
Nephritis and Bright's Disease	16	...	...	...	...	1	2	9	4	6
Puerperal Fever (*i*)... ...	2	...	...	...	...	1	1	...	...	1
Other Accidents and Diseases of Pregnancy and Parturition	3	2	...	...	...	...	1	...	...	...
Congenital Debility and Malformation, including Premature Birth (*j*) ..	33	33	...	...	...	...	...	...	...	8
Violent Deaths, excluding Suicide	20	2	...	1	1	1	2	10	3	15
Suicides	7	...	...	...	..	...	4	3	...	2
Organic Heart disease ...	16	...	...	...	...	...	2	10	4	1
Other Defined Diseases ...	206	12	5	4	8	9	19	43	106	94
Diseases ill-defined or unknown	4	1	...	...	...	...	...	2	1	...
	†551	96	31	28	31	25	55	126	159	197

† By order of the Registrar-General, this number includes the deaths of three Undergraduates who did not belong to the District.

NOTES TO TABLE III.

(*a*) All "Transferable Deaths" of residents, *i.e.*, of persons resident in the District who have died outside it, are *included* with the other deaths in columns 2 10. Transferable deaths of non-residents, *i.e.*, of persons resident elsewhere in England and Wales who have died in the District, are in like manner *excluded* from these columns. For the precise meaning of the term "transferable deaths" *see* footnote to Table I.

(*c*) All deaths certified by registered Medical Practitioners and all Inquest cases are classed as "Certified"; all other deaths are regarded as "Uncertified."

(*d*) This heading includes all deaths from croup except those certified as due to "spasmodic," "stridulous," "catarrhal," or "false" croup.

(*e*) Under "Tuberculous Meningitis" are included deaths from Acute Hydrocephalus.

(*f*) Under "Cancer" are included deaths from Carcinoma, Scirrhus, Epithelioma, Rodent ulcer, Sarcoma, Cancer, and Malignant Disease.

(*g*) Under this heading are included deaths registered as due to Epidemic diarrhœa, Epidemic enteritis, Infective enteritis, Zymotic enteritis, Summer diarrhœa, Choleraic diarrhœa, Cholera (other than Asiatic), Gastro-Enteritis, Gastro-Intestinal Catarrh, Muco-Enteritis, Colitis, &c. Deaths from Diarrhœa secondary to some other well-defined disease are included under the latter.

(*h*) Under this heading are included deaths from Delirium Tremens, acute and chronic alcoholism, &c., but *not* those certified as due to organic disease attributed to alcoholism.

(*i*) Under "Puerperal Fever" are included deaths under such headings as Pyæmia, Septicæmia, Sapræmia, Pelvic Peritonitis, Peri- and Endo-Metritis occurring in the Puerperium.

(*j*) Under this heading are included also deaths from Atrophy and Marasmus of Infants, and want of Breast-Milk, but not from Atelectasis.

TABLE IIIa.

BOROUGH OF CAMBRIDGE, 1911.

Table showing Causes of Death at Different Age Periods during the Year.

Persons.—(Males and Females.)

CAUSES OF DEATH.	AGES AT DEATH.													
	All Ages.	Under 5 years.			5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 and upwards.
		0 to 1	1 to 2	2 to 5										
All Causes	551	96	31	28	25	6	7	18	23	32	44	82	74	85
A.—General Diseases ...	232	53	24	19	19	2	4	9	11	17	21	25	20	8
B.—Local Diseases... ..	219	27	7	8	5	4	3	8	7	14	17	46	38	35
C.—Other Specified Dis. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
D.—Ill-defined Diseases ...	73	14	...	...	...	...	.	...	...	...	1	3	13	42
E.—Violent Deaths. ...	27	2	...	1	1	...	...	1	5	1	5	8	3	...
A.—General Diseases.														
Smallpox Vaccinated ...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Not Vaccinated ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Doubtful	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cowpox & oth: effects of Vaccin:	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chickenpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles (Morbilli)	31	8	12	8	3	...	...	...	...	...	...	1	...	...
German Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	1	...	...	1	...	...	...	...	...	...	...	...	...	...
Typhus	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mumps	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Memb: Croup	19	...	1	5	12	1	...	...	...	...	...	...	...	...
Cerebro-spinal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pyrexia (origin uncertain) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Diarrhœa due to food . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Asiatic Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Infective Enteritis, Epid: Diarr:	10	7	1	1	...	...	...	...	...	...	1	...	...	...
Diarrhœa, not otherwise defined	10	9	1	. .	...	...	...	...	...	...	...	...	...	...
Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tetanus...	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Malaria	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rabies, Hydrophobia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Glanders	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Anthrax (Splenic Fever) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis	1	...	...	...	...	...	...	...	...	...	1	...	...	...
Gonorrhœa, Strict: Urethra ...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
Puerperal Septicæmia ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pyæmia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phlegmasia Dol:	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, not oth: defi:	2	...	...	...	...	...	...	1	1	...	...	...	...	...
Infective Endocarditis ...	1	...	...	...	...	...	...	1	...	...	...	...	...	...
Pneumonia Lobar	6	...	...	1	...	11	...	...	3	1	1	...	...	...
Broncho ...	16	7	2	1	1	...	...	...	...	1	...	...	3	1
Epidemic ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Not defined ...	13	...	4	...	...	...	...	...	1	1	1	2	3	1
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Septicæmia, Sep: Intoxication	1	...	...	...	...	...	...	...	...	...	1	...	...	...
Pyæmia (not puerperal) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phlegmon, Carb: (not Anthrax)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Infective Processes ...	2	...	...	...	..	...	...	...	...	...	1	1	...	...
Tubercular Phthisis	23	...	...	...	...	...	4	5	4	3	4	3	...	...
Phthisis (not otherwise defined)	7	...	...	...	...	...	...	...	...	3	1	1	2	...

TABLE IIIa., 1911.—*Continued.*

CAUSES OF DEATH.	All Ages.	AGES AT DEATH. Under 5 Years.												
		0 to 1	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 and upwards.
A.—General Diseases— *continued.*														
Tuberculous Meningitis	5	..	1	2	1	1	...	...	...	...	...	...	...	...
Tuberculous Peritonitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tabes Mesenterica	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lupus	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tubercle of other organs	5	...	1	...	..	...	...	1	1	...	1	1	...	...
General Tuberculosis	3	...	...	...	1	...	...	1	...	1	...	...	...	...
Scrofula	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Parasitic Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Starvation	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scurvy	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Alcoholism, Delirium Tremens	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Opium, Morphia Habit	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ptomaine Poisoning	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Industrial Poisoning Lead	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phosphorus	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Arsenic, &c.	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rheum: Fever, Acute Rheum: Rheumatism of Heart	1 ...	... ...	... ...	... ...	1 ..	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...
Chronic Rheumatism	1	...	..	...	...	...	...	...	...	...	...	...	...	1
Rheum: Arthritis, Rheum: Gout	2	...	...	...	...	...	...	...	...	...	1	...	1	...
Gout	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carcinoma	24	...	...	...	...	...	...	...	..	3	4	9	6	2
Sarcoma	1	...	...	...	...	...	...	...	...	...	...	1	...	...
"*Cancer*," Malignant Disease	13	...	...	...	...	...	...	...	...	1	1	6	3	2
Rickets	1	...	1	..	...	...	..	...	...	...	...	...	...	...
Purpura	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hæmophilia, Hæm: Diathesis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Anæmia, Leucocythæmia	2	...	...	...	...	...	...	...	...	...	1	1	...	...
Diabetes, Mellitus	6	...	...	...	...	...	...	...	1	2	1	...	2	...
Premature Birth	16	16	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Hydrocephalus	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Congenital Defects	5	5	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atelectasis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast Milk	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Teething	..	...	...	...	...	...	...	...	...	...	...	...	...	...
B.—Local Diseases.														
1. NERVOUS SYSTEM.														
Meningitis, Inflam: of Brain	12	3	1	2	1	2	...	1	1	1	...	...	...	...
Softening of Brain	1	...	...	...	...	...	...	...	...	...	...	1	...	...
General Paraly: of Insane Insanity (not puerperal)	4 3	... ...	... ...	... ...	... ..	... .	... ...	... ...	... ...	2 ...	2 ...	... ...	... 2	... 1
Chorea	...	..	...	...	...	...	...	...	...	...	...	...	...	..
Epilepsy	...	.	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions	4	2	2	...	...	...	...	...	...	...	...	...	...	...
Laryngismus Stridulus	..	..	...	...	...	...	...	...	...	...	...	...	...	...
Locomotor Ataxy Paraplegia, Disease of Spinal Cord	... 1	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... 1	... ...
Neuritis Paripheral Polio-Neuritis Brain Tumour (not specified)	... 1	... ...	... ...	... 1	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...
Nervous System (other Dis:)	7	1	...	...	...	...	1	1	...	1	1	1	...	1
2. DISEASES OF SPECIAL SENSE ORGANS.														
Otitis, Mastoid Disease	2	...	...	...	1	...	...	1	...	...	...	...	...	1
Epistaxis, Nose Disease	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ophthalmia, Eye Disease	...	...	...	...	..	...	...	...	...	...	...	...	...	...

TABLE IIIa, 1911.—*Continued.*

CAUSE OF DEATHS.	All Ages.	AGES AT DEATH.												
		Under 5 Years.												
		0 to 1	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 and upwards.
3. DISEASES OF HEART.														
Valvular Dis, Endocarditis ...	12	..	...	...	...	...	...	...	2	...	2	6	2	...
Pericarditis	...	...	...	...	...	..	...	...	...	...	...	...	...	...
Hypertrophy of Heart ...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Angina Pectoris	1	...	...	...	...	...	...	...	...	...	...	...	1	...
Dilatation of Heart ...	..	...	...	...	...	...	...	...	...	...	..	...	..	...
Fatty degen: of Heart	3	...	...	...	...	...	...	...	...	...	1	1	...	1
Syncope, Heart Dis: (not spec:)	22	...	...	...	...	..	...	...	...	4	2	2	9	5
4. DIS: OF BLOOD VESSELS.														
Cerebral Hæmorr: & Embolism	15	...	...	...	...	...	...	...	...	1	1	5	2	6
Apoplexy, Hemiplegia	19	...	...	...	...	...	...	...	1	...	...	6	6	6
Aneurism	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Senile Gangrene	...	...	...	...	...	...	...	...	..	...	...	...	...	...
Embolism, Throm: (not Cereb:)	2	...	...	...	...	..	...	1	1	...	...	...	...	...
Phlebitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Varicose Veins...	...	...	...	...	...	...	...	...	..	...	..	...	...	...
Blood Vessels (other Diseases)	4	...	...	...	...	...	..	...	...	...	...	1	2	1
5. DIS. OF RESPIRATORY SYS.														
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Memb: Laryng: (not Diphth:)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup (not Spasmod: or Memb:)	3	...	...	3	...	...	...	...	...	...	...	...	...	...
Larynx or Trachæ (other Dis:)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	23	4	1	...	...	...	1	...	...	...	...	5	4	8
Emphysema, Asthma	3	...	...	...	...	...	...	...	...	...	1	1	1	...
Pleurisy	4	...	...	...	...	...	...	1	1	...	...	...	1	1
Fibroid Disease of Lung	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Respiratory Dis: (Other)	1	...	...	...	...	...	...	...	...	...	...	1	...	...
6. DIS: OF DIGESTIVE SYS:														
Tonsilitis, Quinsy	2	...	..	..	2	...	...	...	...	...	...	...	...	...
Mouth, Pharynx, Oesophagus.	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gastric Ulcer	1	...	...	...	...	...	...	...	...	...	. .	1	...	...
Gastritis, Gastric Catarrh ...	3	1	...	...	...	...	...	...	...	...	...	1	...	1
Stomach (Ot: Dis:) not Malig:	2	...	1	...	...	...	...	...	...	...	...	1	...	...
Ulceration of Intestines ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis (not Epidemic) ...	2	2	...	...	...	...	...	...	...	...	...	...	...	...
Gastro-Enteritis	10	8	2	...	...	...	...	...	...	...	...	...	...	...
Appendicitis, Perityph ...	2	...	...	...	...	1	...	...	...	...	...	1	...	...
Hernia	4	1	...	...	...	...	...	..	...	...	1	1	1	...
Intestinal Obstruction ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Intestines ...	4	2	..	1	...	...	...	...	...	1	...	...	...	...
Peritonitis (not Puerperal) ...	3	...	...	...	1	...	...	...	...	...	1	1	...	...
Cirrhosis of Liver	4	...	...	1	...	...	...	...	...	...	1	1	1	...
Liver and Gall Bladder (O.D.)	2	1	...	...	...	...	...	...	...	...	...	1	...	...
Digestive System (Other Dis:)	3	...	...	...	...	...	...	1	...	...	...	2	...	...
7. DIS: OF LYMPHATIC AND DUCTLESS GLANDS.														
Spleen, Disease of	. .	...	...	...	...	...	..	...	...	...	...	...	...	...
Lymphat: Syst: (Other Dis:)	1	...	...	...	1	...	...	1	...	...	...	...	...	...
Thyroid Body (Other Dis:) ...	1	...	...	...	...	...	...	...	...	...	...	1	...	...
Supra Renal Caps: (Dis: of)...	...	...	...	...	..	...	...	...	...	...	...	...	...	...
8. DISEASE OF URINARY SYS:														
Nephritis Ac: Uræmia ...	2	...	...	...	...	...	...	...	...	...	...	1	1	...
Ch: Bright's Dis: Albumin:...	14	...	...	. .	...	...	...	1	...	2	4	4	2	1
Calculus (not Biliary) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bladder and Prostate Dis: ...	3	...	...	...	...	...	...	...	...	...	...	...	1	2
Urinary Syst: (Other Dis:) ...	2	...	...	...	..	...	...	...	...	1	...	...	...	1

TABLE IIIa., 1911.—*Continued.*

CAUSES OF DEATH.	All Ages.	AGES AT DEATH. Under 5 Years. 0 to 1	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 and upwards.
9. DISEASES OF GENERATIVE SYSTEM.														
Ovarian Tumour (not Malig:)	...	...	...	...	...	...		...	...	...	...	...	...	...
Other Dis: of Ovary ...	..	...	...	...	..	...	...	...	...	...	...	...	...	...
Uterine Tumour (not Malig:)	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Oth: Dis: of Uterus & Vagina	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Disorders of Menstruation ...	..	...	...	...	...	...	...	...	..	...	...	...	...	...
Gener: and Mam Orgs: (other)	..	...	...	...	...	...	...	...	...	...	...	...	...	...
10. DISEASES OF PREGNANCY AND CHILDBIRTH.														
Abortion, Miscarriage ...	..	...	...	...	..	...	...	...	...	...	...	...	...	...
Puerperal Mania	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Convulsions ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Placenta Præv: Flooding ...	..	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Ac: of Preg: & Childbirth	3	2	...	...	...	...	...	...	1	...	...	...	...	...
11. DISEASES OF LOCOMOTOR SYSTEM.														
Caries, Necrosis	1	.	...	...	...	...	...	...	...	...	...	...	1	...
Arthritis, Periostitis	1	...	...	...	...	1	...	...	...	...	...	...	...	...
Locomotor Sys: (other) ...	..	...	..	...	...	...	...	...	...	...	...	..	...	...
12. DISEASES OF THE SKIN.														
Ulcer, Bedsore	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Eczema	...	...	...	...	...	...	...	...	...	...	...	..	...	...
Pemphigus	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Skin Diseases (other)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
C.—Other Specified Diseases.	...	..	...	...	...	...	...	..	...	...	...	...	...	...
D.—Ill-defined and not Specified Diseases.														
Atrophy, Debility	12	12	...	...	...	...	...	...	...	...	...	...	...	...
Old Age...	53	...	...	...	...	...	...	...	...	...	..	...	12	41
Dropsy, Ascites, Anasarca ...	2	1	...	...	...	...	...	...	...	..	...	1	...	...
Tumour...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abscess	1	..	...	...	..	...	...	...	..	...	...	1	...	...
Hæmorrhage	1	...	...	...	...	...	...	...	..	...	...	...	1	...
Sudden (cause unascertained)..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Ill-defined Causes ...	4	1	...	...	...	...	...	...	...	...	1	1	...	1
Causes not specified	...	...	...	...	...	...	...	...	...	...	...	...	...	...
E.—Violent Deaths.														
1. ACCIDENT.														
Burns and Scalds	4	...	...	1	1	...	...	...	1	...	...	...	1	...
Poison, Poisonous Vapours ...	..	..	..	...	...			...	...	...	...	...	...	...
Drowning	6	..	...	..	...	...	...	1	...	...	1	2	2	...
Suffocation	1	1	...	...	..			...	...	...	...	...	...	...
Falls	7	1	...	...	...	..	...	...	1	..	1	4	...	...
Weather Agencies	...	..	...	.	..				...	.	...	.	.	...
Otherwise or not Stated ...	2	...	...	...	..		...				1	1	...	...
2. HOMICIDE.	...	...	...	...	...	...	...	...	..	..	...	.	...	...
3. SUICIDE.	7	...	...	...	...	...	...	...	3	1	2	1	...	...
4. EXECUTION.	...	...	...	...	...	...	...	...	...	...	...	...	..	...

TABLE IV.

Borough of Cambridge.

INFANT MORTALITY, 1911.

Nett Deaths from stated causes at various Ages under 1 year of Age.

See Note (*a*).

CAUSE OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under 1 year.
All causes { Certified ...	19	1	2	5	27	18	22	11	17	95
All causes { Uncertified ...	1	...	...	...	1	...	...	...	...	1
Small-pox	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	8	8
Scarlet Fever	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup... ...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	..	...	...	...	...	...
Diarrhœa	...	...	1	1	2	1	6	6	1	16
Enteritis...	...	...	...	...	...	2	4	3	2	11
Tuberculous Meningitis ...	...	...	...	...	...	...	...	...	...	...
Abdominial Tuberculosis (*b*) ...	...	...	...	..	...	...	...	...	...	...
Other Tuberculous Diseases ...	..	...	...	...	...	...	...	...	...	...
Congenital Malformations (*c*)...	1	...	...	1	2	2	1	...	...	5
Premature Birth	10	1	...	...	11	4	1	...	...	16
Atrophy, Debility and Marasmus	4	...	...	1	5	4	3	.	...	12
Atelectasis	...	...	...	...	...	...	...	...	...	...
Injury at Birth	...	...	1	...	1	...	...	...	...	1
Erysipelas	...	...	...	...	...	...	...	...	...	...
Syphilis	...	...	...	..	...	...	...	...	...	...
Rickets	...	...	...	...	...	...	...	...	...	...
Meningitis (*not Tuberculous*) ...	...	...	...	...	...	1	1	1	...	3
Convulsions	...	...	...	1	1	1	...	...	...	2
Gastritis...	...	...	...	...	...	...	...	...	1	1
Laryngitis	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	1	1	..	...	1	2	4
Pnuemonia (all forms) ...	...	...	...	...	...	1	5	...	1	7
Suffocation, overlying... ...	...	...	...	...	...	1	...	...	...	1
Other causes	5	...	...	...	5	1	1	...	2	9
	20	1	2	5	28	18	22	11	17	96

Nett Births in the year { legitimate... 727. illegitimate. 37.

Nett Deaths in the year of { legitimate infants... 88 illegitimate infants. 8

(*a*) The total in the last column of Table IV. is equal the total in column 10 of Table I., and in column 3 of Table III.

(*b*) Under Abdominial Tuberculosis are included deaths from Tuberculous Peritonitis and Enteritis and from Tabes Mesenterica.

(*c*) The total deaths from Congenital Malformations, Premature Birth, Atrophy, Debility and Marasmus, equal the total in Table III. under the heading Congenital Debility and Malformation including Premature Birth.
Want of Breast Milk is also included under Atrophy and Debility.

(*d*) For references to the meaning of any other headings, *see* notes attached to **Table III,**

TABLE V.

Borough of Cambridge.

Comparison of Prevalence of Sickness and Death from Infectious Diseases corrected by the exclusion of "Non-Residents."

(Rates calculated per 1,000 persons, on the population estimated to the middle of each year.)

YEAR.	Small Pox.		Diphtheria, Membranous Croup.		Erysipelas.		Scarlet Fever.		Typhus Fever.		Enteric and Continued Fevers.		Puerperal Fever.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1901......	0·00	0·00	1·43	0·18	0·52	0·05	1·92	0·00	0·00	0·00	0·57	0·07	0·02	0·02
1902......	0·05	0·02	0·41	0·05	0·57	0·00	5·27	0·07	0·00	0·00	0·33	0·07	0·02	0·02
1903......	3·41	0·38	1·75	0·28	0·59	0·00	7·34	0·15	0·00	0·00	0·15	0·02	0·05	0·02
1904......	0·00	0·00	1·00	0·25	0·84	0·00	1·69	0·05	0·00	0·00	0·23	0·00	0·02	0·00
1905......	0·00	0·00	1·66	0·46	1·10	0·05	3·37	0·05	0·00	0·00	0·20	0·05	0·12	0·00
1906......	0·00	0·00	0·79	0·30	0·69	0·05	2·83	0·02	0·00	0·00	0·10	0·02	0·02	0·00
1907......	0·00	0·00	0·83	0·07	1·29	0·10	1·93	0·02	0·00	0·00	0·05	0·00	0·25	0·05
1908......	0·00	0·00	1·97	0·15	0·43	0·00	0·91	0·00	0·00	0·00	0·15	0·00	0·02	0·02
1909.... .	0·00	0·00	1·48	0·17	0·70	0·02	3·04	0·02	0·00	0·00	0·05	0·00	0·00	0·00
1910.....	0·00	0·00	1·47	0·35	0·42	0·05	3·53	0·00	0·00	0·00	0·05	0·00	0·02	0·02
Average for years 1901—1910	0·34	0·04	1·28	0·23	0·71	0·02	3·15	0·04	0·00	0·00	0·18	0·02	0·06	0·02
1911......	0·00	0·00	2·79	0·47	0·64	0·00	8·26	0·02	0·00	0·00	0·07	0·00	0·12	0·02

REPORT

ON

SCARLET FEVER

IN

CAMBRIDGE

During September and October, 1911.

Cambridge:
W. Heffer & Sons Ltd.,
104 Hills Road.

Report on Scarlet Fever in Cambridge during September and October, 1911.

The history of Scarlet Fever in Cambridge shows an almost uninterrupted continuity of cases for many years back.

No reliable record is available for the period prior to the adoption of the Infectious Diseases Notification Act, 1889. This Act came into operation on the 11th of February, 1890, and the number of cases notified in each year since that date is as follows:—

	Cases.		Cases.
1890	39	1900	141
1891	30	1901	76
1892	48	1902	218
1893	140	1903	284
1894	106	1904	66
1895	52	1905	132
1896	87	1906	101
1897	52	1907	76
1898	103	1908	36
1899	157	1909	121
		1910	141

These figures show a moderately regular periodic rise and fall in the number of cases, one or two years of excessive prevalence of the disease being followed by one or two years of diminished prevalence.

The seasonal prevalence of the disease for the past ten years is shown in the following table:—

	Jan	Feb	Mch	Apl	M'y	J'ne	J'ly	Aug	Sep	Oct	Nov	Dec	Total.
1901...	14	5	4	8	6	7	5	7	6	6	6	2	76
1902...	10	13	8	8	21	21	9	9	18	30	30	41	218
1903...	33	23	17	31	47	25	27	19	15	24	11	12	284
1904...	9	11	7	1	5	4	1	2	1	14	3	8	66
1905...	8	10	9	62*	5	7	6	8	8	2	3	4	132
1906...	5	3	8	2	2	24	13	10	15	8	6	5	101
1907...	0	3	10	4	7	9	4	16	11	1	7	4	76
1908...	0	6	0	1	2	0	4	1	1	1	9	11	36
1909...	7	7	15	21	14	5	5	2	6	14	17	8	121
1910...	12	12	11	7	3	4	9	4	6	26	18	29	141
Ten years av'ge for each m'nth	9·8	9·3	8·9	14·5	11·2	10·6	8·3	7·8	8·7	12·6	11·0	12·4	125·1
1911...	21	20	7	15	11	12	13	7	64	65			

* Milk Epidemic.

Taking the ten years average, the greatest incidence of disease has been during the second and fourth quarters. During those ten years the only months during which no cases were notified were January, 1907, and January, March, and June, 1908.

Throughout the Annual Reports of the Medical Officer of Health of the Borough references are made frequently to the means by which the disease is propagated. This is almost invariably by spread from person to person through the agency of mild cases of the disease which have escaped recognition by parents, and which no medical man, owing to the mildness of the symptoms, has been called to see. The first reference to this source of infection is contained in the Annual Report for 1887, on page 14 of which the Medical Officer remarks, "Many of the cases were of ill-marked character and therefore escaped notice."

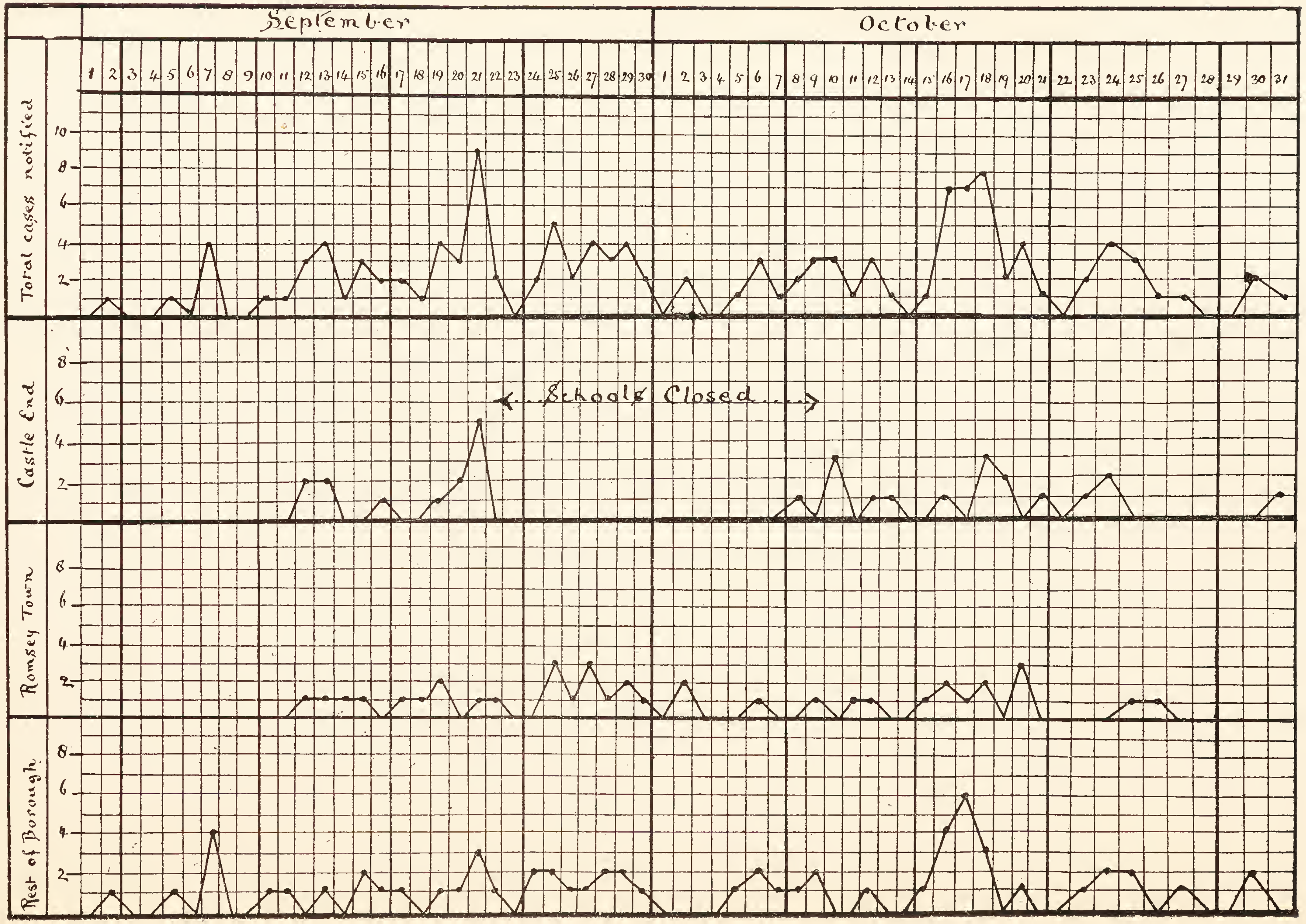
On only one occasion in the history of the Borough was the disease conveyed otherwise than by contact with an infected person. This was during an outbreak in April, 1905, when the infection was traced to milk.

History of the present outbreak.

During the present year the incidence of Scarlet Fever presented no unusual features until immediately after the summer holidays when the schools re-opened. The children re-assembled on September 4th, and at once the number of notifications showed a rapid increase. This is clearly shown by the following charts which give the cases notified daily from the beginning of September to the end of October.

For a time the cases were restricted to two well defined areas, one in Romsey Town close to the Borough boundary at the end of Mill Road, and the other in Castle End, but later on cases began to appear in one or two other centres. This grouping of cases in fairly well defined areas has been quite a feature of the outbreak, and it has been possible in practically every case to trace the source of infection.

Chart showing daily notifications in Castle End, Romsey Town, and Rest of Borough, and also total number of cases notified each day during September and October, 1911.



The Castle End Cases.

The first cases in this district were notified on the 12th of September, and from that time to the end of October, 30 cases have been notified from here. Those occurred in 20 households, and were chiefly children attending the St. Giles and St. Peter's schools.

The history of the origin of the disease in the district is interesting. On September 21st a telephone message was received which led to a visit being paid to a family living in Smith's Gardens, with the result that five out of the eight children in the house were found to be suffering from Scarlet Fever. The mother denied that there had been any illness among her children, but an examination of them showed that the date of onset of the first case must have been somewhere toward the end of August. This case was a boy of 13 who was employed as a messenger by a firm in the town, and it is probable that the infection was contracted during one of his journeys. The infection thus introduced was spread by him and by his brother and sisters, four of the five affected in this family being in attendance at the Castle End schools without interruption from the date of re-opening until their discovery on the 21st September.

The Romsey Town Cases.

These arose in the same fashion, the earliest cases which had done the mischief being children who lived just over the Borough boundary in Brookfields. Children from this part attend schools in Cherryhinton and also in the Borough, and it was during the course of routine medical inspection by the County Medical Officer's lady assistant that certain children were found desquamating in school.

The total number of cases in this district up to the end of October was 38, the number of households affected being 30.

In the remainder of the Borough 61 cases occurred in 41 households during the same period.

The disease once started was kept going by personal contact, chiefly with mild cases which escaped recognition in the early stages. Some of those missed cases were only discovered after one, two, or even three weeks had elapsed since their onset.

The following are given as examples :—

(1). Margaret A. reported by the Head Mistress to be absent with sore throat. School Nurse reported no doctor in attendance. Visited by Medical Officer of Health. Three children found with Scarlet Fever on 7th September, and two others subsequently sickened.

(2). A small outbreak of six cases at Auckland Road was explained by the discovery of a girl desquamating, who had never been laid up or absent from school. A sister of this child had a rash on September 12th and attended school until September 22nd. The mother "thought it was measles."

(3). Two children sickened in one house on the forenoon of the same day, and were taken to school by their father in the afternoon. They were at once sent home and notified by the Head Mistress. Another child in the same school sickened on a Sunday and was at school on the following Monday and Tuesday.

(4). Three sisters, R., D. and A., were found desquamating in St. Giles Girls' school on October 18th and were removed to the Hospital on the same day. They gave a history of sore throats on September 19th, 25th, and October 4th.

(5). H. P. sickened on October 3rd and was last at school (St. Philip's Boys') on the same day. He was supposed to have eczema, and was allowed to mix with others until October 18th when he was found to be desquamating.

(6). O. K. had a slight sore throat on October 16th. She returned to school (St. Philip's Infants') on November 1st and was then found by the School Nurse to be desquamating.

(7). D. B., aged 4 years, did not attend any school, but came to be known owing to three school children with whom she played a great deal being reported absent with sore throats. She was found desquamating on November 4th. Three weeks previously she had had a sore throat.

(8). In many households enquiry showed that previous to the onset of the notified case one or more members of the family had suffered from sore throat, but in more than one house where children were found peeling at the time the first recognised case in the house was visited, no such history of sore throat or other illness could be obtained.

Further illustrations of this mode of spread could be given, but probably those mentioned sufficiently illustrate the difficulties of dealing with the outbreak. In all 23 cases were found which had escaped early recognition, and of these 19 were in the state of desquamation when first seen.

The type of disease.

From what has been said it will have been gathered that the cases were, generally speaking, of an extremely mild type, so mild, in fact, that many parents regarded the complaint as too trifling to require medical attendance. Only one case so far has terminated fatally during the present epidemic. The total number of deaths during the last ten years is 16, the highest number in any one year being 6 in 1903, while in the years 1901, 1908 and 1910 there were no deaths at all from this cause.

The total number of cases notified from the beginning of September to the end of October has been 129. These have occurred in 91 households, the largest number in a family being five. This occurred in two instances, one being the Castle End family already mentioned as being the probable source of the outbreak in that locality.

Age and Sex Distribution of the Cases.

As was to be expected, the cases occurred chiefly among children, 95 of the total being between the ages of five and fifteen. The cases were practically equally distributed between the sexes.

Ages ...	0–1	1–2	2–3	3–4	4–5	5–10	10–15	15–20	20–25	25 and upw'ds	Total.
Males ...	—	—	4	5	4	32	14	5	1	—	65
Females	—	—	1	2	6	37	12	—	2	4	64
Totals...	—	—	5	7	10	69	26	5	3	4	129

Schools Affected and the Influence of School Attendance on the Spread of Infection.

The number of scholars infected in each School is shown below. The figures in the first column are the cases notified from the beginning of the year up to the end of August, and the figures in the second column are the cases notified during September and October. It will be seen that the largest number of cases in school children was at the St. Giles and St. Peter's Schools (26), and the next largest at the St. Philip's Schools (24).

(See table next page.)

	Number of cases to Aug. 31st.	Number of cases during Sept. & Oct.
St. Philip's Infants'	6	12
St. Philip's Girls'	5	4
St. Philip's Boys'	3	8
St. Giles Girls'	0	13
St. Giles Infants'	0	7
St. Peter's Boys'	0	6
Abbey Mixed and Infants'	8	7
New Street Mixed and Infants'	8	3
East Road Boys', Girls', and Infants'	4	9
Romsey Council	4	6
Brunswick Council	3	5
Sturton Street Infants'	4	3
St. Paul's Boys', Girls', and Infants'	3	1
St. Matthew's Girls and Infants'	3	6
Occupation Road	1	2
St. Barnabas	1	0
King Street	0	2
Park Street	1	0
County Girls'	2	0
Private	2	0
York Street Boys'	0	2
Higher Grade Boys'	0	1
Perse Boys'	0	1
St. Luke's	0	1
Totals	58	99

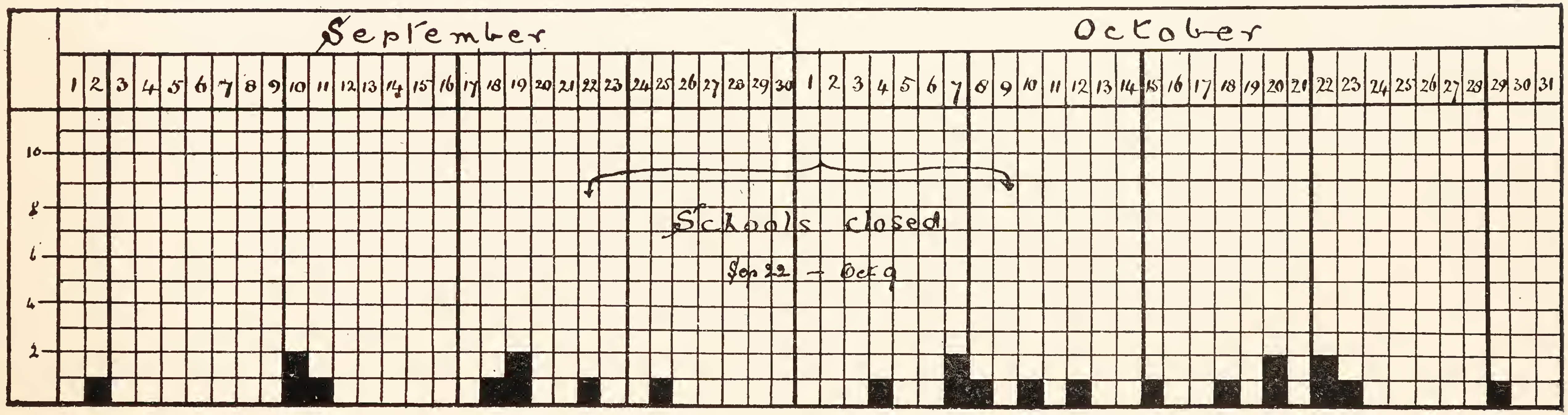
That School attendance was one of the factors involved in the continuance of cases there is no doubt. The manner in which it operated is indicated by the illustrative cases already mentioned. It is, however, equally certain that the relative importance of this factor was not very great, and it is of interest to study the facts with regard to the closure of the St. Giles and St. Peter's Schools.

These Schools were closed on September 22nd and re-opened on October 9th. The chart showing the daily notifications in the Castle End district shows a complete cessation in the notifications during the period of closure, suggestive at the first glance of sudden decline in the outbreak here coincident with and resulting from closure. That this conclusion is not wholly warranted is shown in the following chart, in which the cases are distributed, not according to date of *notification*, but according to the date of *onset* of the illness. This second chart shows that six cases sickened during the time the Schools were closed. Those were notified after the re-opening. This effect was anticipated and confirms previous experience that much better results are to be obtained from prompt notification by Head Teachers of all absentees during an outbreak not satisfactorily accounted for.

Steps taken to deal with the outbreak.

Of the 129 cases notified 115 were treated in the Infectious Diseases Hospital. Cases which parents wished to keep at home and which could be satisfactorily isolated were not removed. A number of those sent to

Chart showing distribution of cases in Castle End according to date of onset of illness.



Hospital might have been isolated at home, but removal was effected in order to avoid inconvenience to others in the house whose employment would probably have been affected had the case not been removed. A large majority of people find the Hospital a great convenience to them when infection appears, and are desirous of utilising the accommodation which has been provided by the Council. The amount of disturbance of domestic arrangements and interference with employment is thus reduced to a minimum.

The customary measures of detailed enquiry into each case as it arose, disinfection of rooms, bedding and clothing, notification of cases and exclusion of contacts from Day school and Sunday school were also carried out. A printed leaflet, warning parents of the existence of the disease and giving some information as to symptoms of onset and pointing out the need for medical advice, was distributed throughout the districts chiefly concerned.

A most important measure consisted in the notification by Head Teachers of all school children who were known to present symptoms which were suggestive of the possibility of Scarlet Fever. All those cases were visited and seen either at school or at home, and where advisable they were excluded, and re-visited from time to time until a definite conclusion could be arrived at. The amount of work thus entailed was very considerable, the total number of children seen in this way being nearly two hundred. The value of this measure is evident from the fact that fifteen of those children were found to be affected with Scarlet Fever, and but for this visitation might have either been entirely overlooked or have gone unrecognised until well defined cases led to their discovery later on. In addition a number of cases were visited at the request of the medical practitioners attending.

The St. Peter's Boys' and St. Giles Girls' and Infants' schools were closed from September 22nd to October 9th, owing to the reduction in attendances arising mainly from exclusion of children from infected homes, and also from parents keeping their children away in order to avoid any risk of infection at school.

The large number of cases which were notified in the first few weeks of the outbreak taxed the accommodation at the Infectious Diseases Hospital to the utmost, and the Committee will remember that at their meeting on September 26th it was decided that the vacant buildings of the Coldham's Lane Hospital should be utilised temporarily for the accommodation of convalescent patients. Arrangements were at once made for this purpose, and the first cases were transferred here on September 27th. The total number of cases transferred was 52, and at the time of writing (November 10th) arrangements are in progress to have the premises closed in the course of a few days.

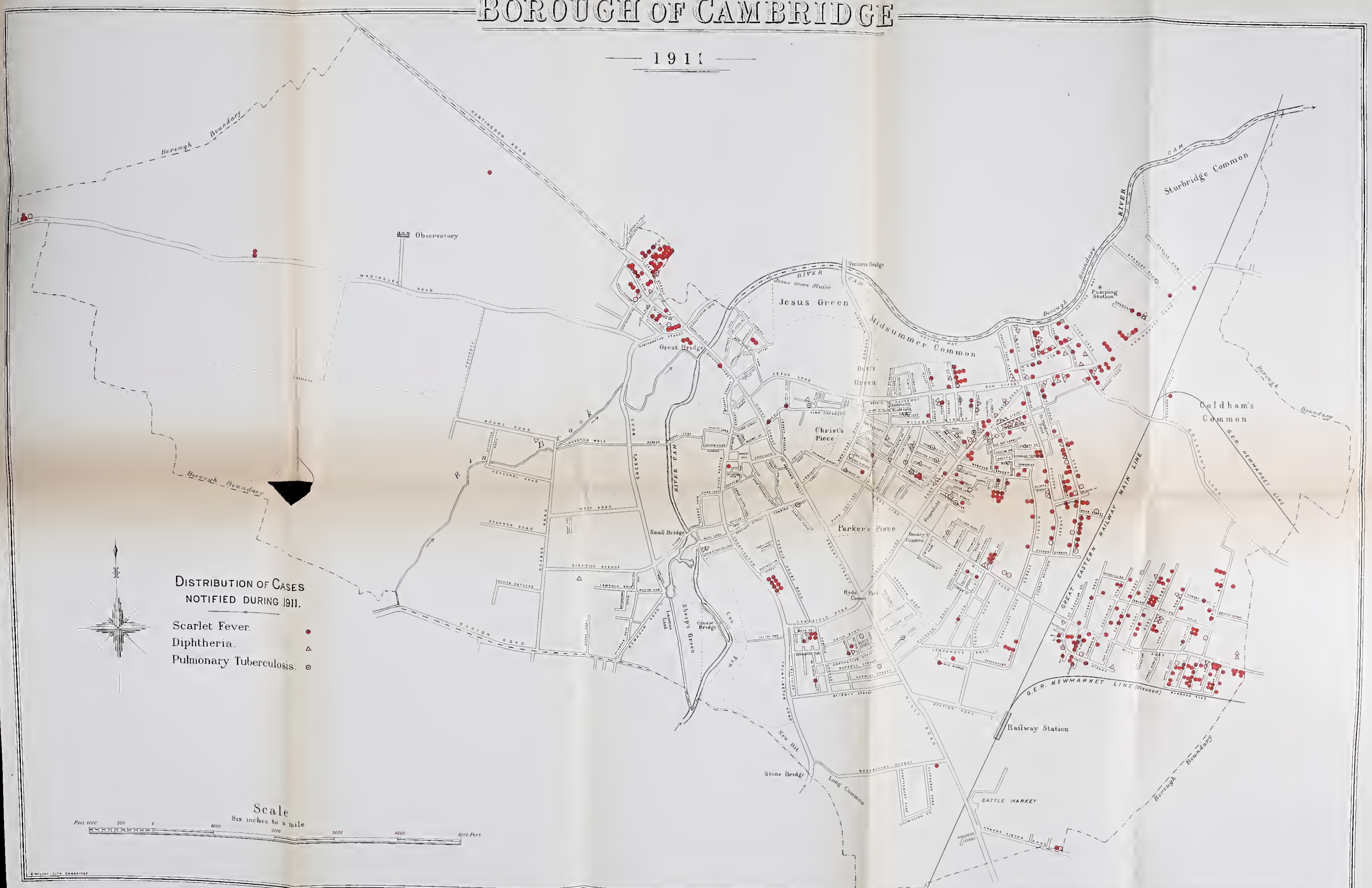
ANDREW J. LAIRD,

Medical Officer of Health.

Public Health Department,
Guildhall, Cambridge.
10th *November*, 1911.

BOROUGH OF CAMBRIDGE

1911



Distribution of Cases notified during 1911.

- Scarlet Fever. ●
- Diphtheria. △
- Pulmonary Tuberculosis. ⊙